

THE MILLING WORLD

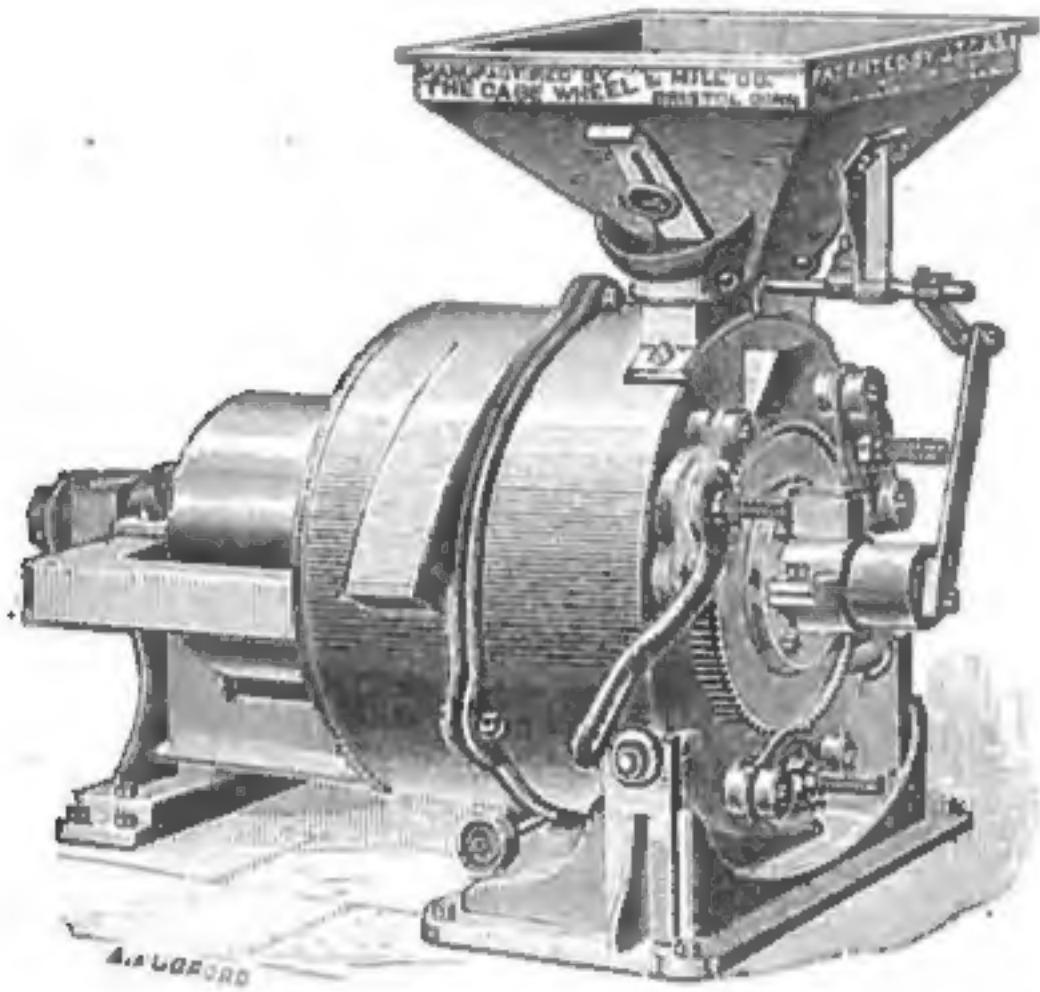
AND
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 4.

BUFFALO, N. Y., MARCH 25, 1889.

\$1.50 PER YEAR.



VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

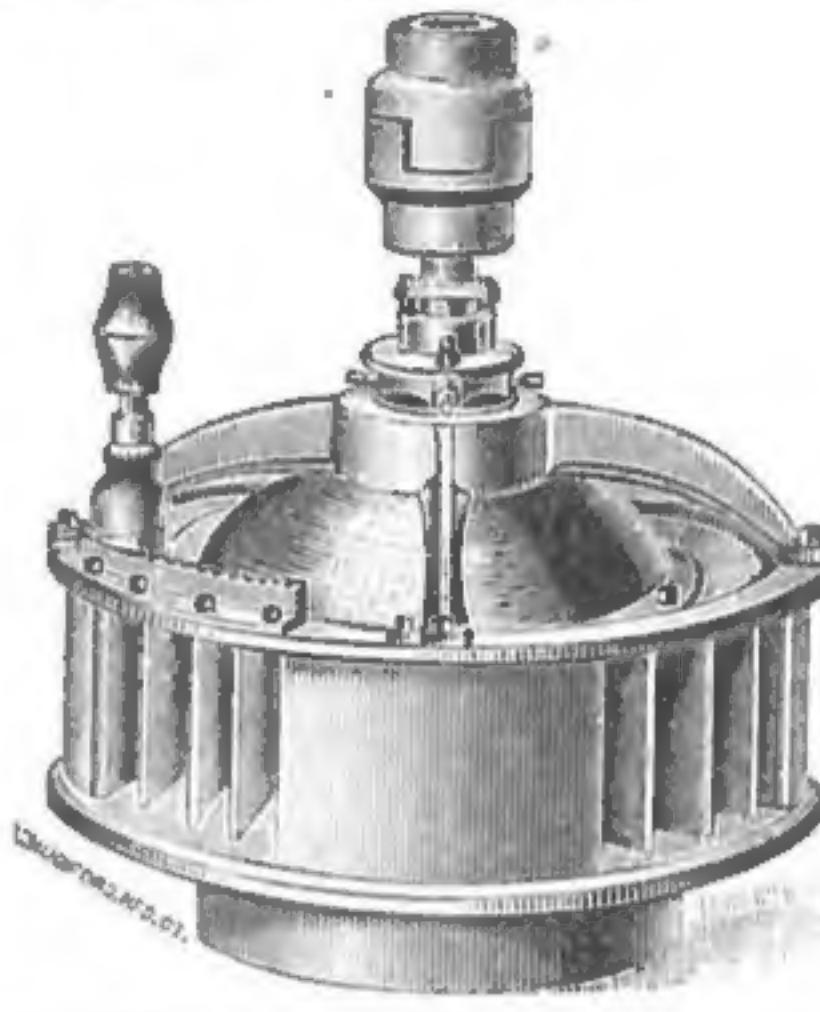
"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.

"Superior to any mill in use."—GEO. WESTON, Bristol, Conn.

"The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.

"We take pleasure in recommending it."—GARLAND LINCOLN & Co., Worcester, Mass.

SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.



The Improved National Turbine Water Wheel

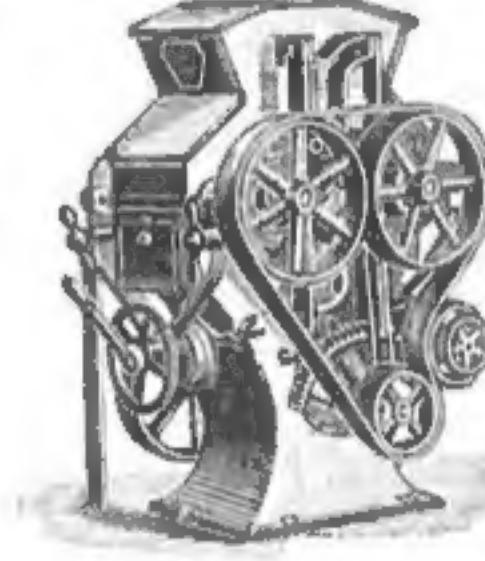
The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.

The Case Wheel & Mill Co., Bristol, Conn.



FOOD FOR REFLECTION

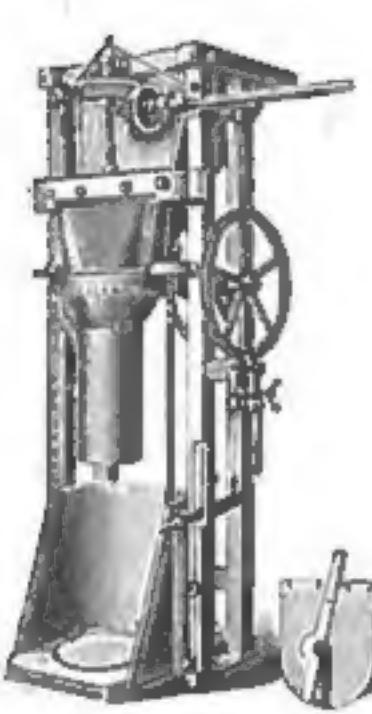
READ IT, AND DON'T FORGET IT



A Convincing Testimonial.

The following letter was written by a prominent Indiana firm of winter-wheat millers and published in one of the milling journals. It will explain itself:

"Seeing articles from time to time in the milling journals in regard to different mills, we would be pleased to furnish you with a short description of ours. Our mill was furnished and put up by the J. B. Allfree Co., of Indianapolis, Ind., and has been in operation since July, 1888. We have 75 barrels capacity, making three breaks on wheat and five on middlings. The rolls are known as the "Keystone" and are very fine machines, as they are well built, have excellent adjustments and are supplied with an automatic feed which is perfection in itself, making in all light-running and very complete machines. The bolters are called the "Success" and are built by the same company. This reel has advantages over any round reel we have seen. The lifters are so arranged that by the use of a lever they can be adjusted in or out, thus allowing the miller to confine or discharge the stock, according to his own judgment and the kind of stock being handled. The purifiers, bran-duster and packer are alike good machines and the workmanship is first-class in every respect. The wood-work, being finished with two coats of varnish, gives the mill a very fine appearance. The plant from the start has made an excellent grade of flour and we have had no trouble in competing or selling all we can make. There has not been a single change made, nor do we desire one. The clean-up is first-class and we think we have one of the finest little mills in the state. We give a standing invitation to any of our brother millers to visit our mill and examine its work. The string hangs on the outside and all are welcome. In dealing with the Allfree Co., we find them perfect gentlemen in every respect, and, while filling the contract in all particulars, they even did more than they agreed to. Wishing them deserved success we are respectfully,
EMMONS & LEHMAN,
Jamestown, Ind., Jan. 10.

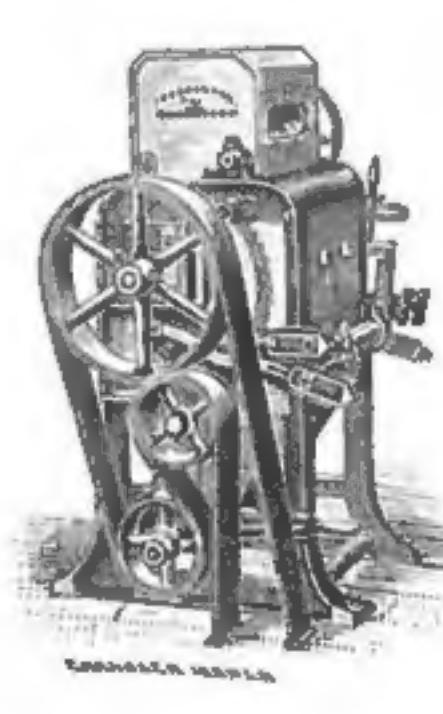


WHEN YOU WANT TO BUILD AN A NO. 1 MILL.

We Solicit Orders for Dufour Bolting Cloth.

—ADDRESS—

The J. B. Allfree Co., Indianapolis, Ind.



Some Millers' Opinions EXPRESSED THIS YEAR, 1889.

SHREVE, O., Jan. 25, 1889.

THE CASE MFG. CO.

Gentlemen: We called at Bank Jan. 22d and paid our last note, which we believe closes our dealings so far as our contract with you for remodeling our mills is concerned. We want to say that we are entirely satisfied with all our dealings with you. Our mill is all we could expect, and is doing us good work. Extending to you our best wishes, we remain,

Very respectfully yours,
FOLTZ & BRENEMAN.

—o—

WAVERLY, O., JAN. 27, 1889.

THE CASE MFG. CO.

Gentlemen: Although it has been but a few weeks since I have gotten my Waverly Roller Mills started as recently re-furnished with your system of breaks and rolls, yet I have already learned to my satisfaction that your outfit of milling machinery is the best in use to-day. I am now making a grade of flour that is equaled by few and excelled by none, in fact superior to any flour produced in this part of Ohio, and is fast distancing all competitors in the market. I can conscientiously recommend you as General Mill Furnishers.

Yours truly,
JAS. EMMETT.

E. M. NEWTON.

D. B. SMITH.

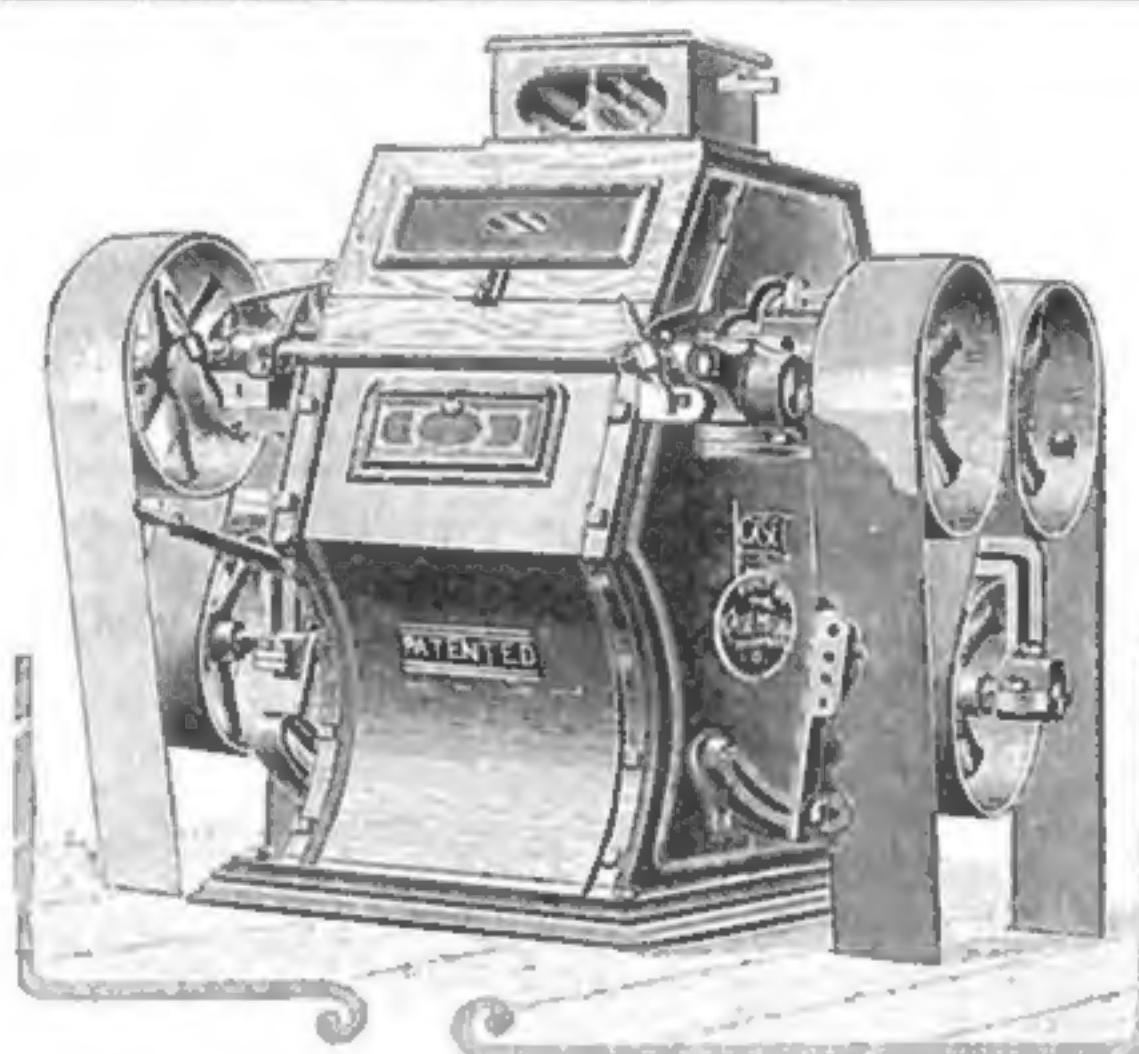
G. TERRY.

OFFICE OF GUTHRIE MILL CO.,
GUTHRIE, KY., Feb. 26, 1889.

CASE MFG. CO.

Gentlemen: Yours of the 20th to hand and in answer to inquiry about the five Inter-Elevator Flour Dressers bought of you will say that they are working perfectly satisfactory, and we regard them as being the best bolts we have ever seen, and if we had to build another mill, would use no other. We will take pleasure in showing and recommending them to any one who may be in need of a Flour Dresser. Wishing you much success in the future, we remain,

Yours truly,
GUTHRIE MILL CO.,
By E. M. Newton.



The Gem Roll of the World.

LEONIDAS, MICH., Feb. 4, 1889.

THE CASE MFG. CO.

Gentlemen: In reply to yours of the 31st ult., as to how I liked your machinery, would say I have a 3-break mill using 3 double stands of 6x18 Case rolls, one double stand of 6x'5 rolls made by another firm. We started our mill September 1, 1888, and I must say your rolls are more than you claim for them. They started from the word "go." Not a single "hot journal," or any thing else to cause any trouble in the least. The other stand has been a continual bother from the start, running hot, and the feed would not work only in bunches, and let me say right here that they cost me more money than the Case did, and I mean in the near future to displace it by a Case. Your feed is simply perfect. It feeds even the full length of the rolls, and the beauty of all is we can stop and start the Case Rolls without touching a single lever; the other stands wants two men to stop and start. I also have a double stand of 9x18 Case rolls for feed. It does good work with half the power a 36-inch buhr took for same amount of work. Should you wish to send any parties here to see my mill at work, I can prove to them all I have said. With very best wishes to the Case Company, I am, very respectfully yours,

GEO. ENGEL
Successor to Espenain & Engel.

WE BUILD NONE BUT FIRST-CLASS MILLS AND WILL GUARANTEE Each Mill We Build to Produce Results Excelled by None *COMPLETE LINE OF MILL SUPPLIES AT LOW PRICES.*

We have the most Complete Plant for Regrinding and Recorrugating Rolls, and put in Any Style Cut Desired.

MACHINE WORK OF ALL KINDS DONE PROMPTLY.

—ADDRESS—

THE CASE MFG. CO., COLUMBUS, O.

■ PLEASE MENTION "THE MILLING WORLD."



CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 4.

BUFFALO, N. Y., MARCH 25, 1889.

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NIAGARA river is still cavorting away in unharnessed freedom, despite the \$100,000 prize that awaits the man who shall "harness" it and add to its aesthetic beauty the commercial beauty of utility. Millers, who are looking for a "supremacy milling center," should not ignore the claims of Buffalo and the prospectively "harnessed" Niagara. In suitable "harness," Niagara could easily grind 600,000,000 bushels of wheat in a year.

CERTAIN able and esteemed cotemporaries continue to jump onto Statistician Dodge of the Agricultural Department, denouncing his crop reports as misleading and defective and advocating a revision of the statistical work of that department. Somewhat curiously, these same cotemporaries, who denounce Dodge, swallow without a murmur the other crop "experts," whose mistakes last year ranged from 50,000,000 to 175,000,000 bushels on the wheat crop alone. We neither defend Dodge nor apologize for the errors he may make, but we think it only fair to treat all the "experts" and guessers alike.

SECRETARY SEAMANS! Stand up! What of the meeting of the Millers' National Association in the beautiful city of Milwaukee next June? Are you getting up a genuine programme for millers, or is that meeting to be a sort of echo of the recent spring-wheat convention in Milwaukee and of the more recent winter-wheat convention in Indianapolis? Are you to furnish a "professional crop report" the same as last June? Will the time all be taken up with things that belong to a Grain-Brokers' National Association rather than to a Millers' National Association? In short, Secretary Seamans, is the miller to have any show at all in the next convention? Will expert authorities again be invited to give scientific expositions of the art of milling and be insulted by being ignominiously thrust aside to give time to gabblers whisking about on hobbies? Is the average miller to be received, or do the managers care for "only large millers, representing over 200 barrels daily capacity and upward"? Mr. Secretary, it is time to let coming events cast some shadows before.

CANADIAN millers are contending against great odds at present. They claim that the present tariff on imported flour discriminates against them and in favor of the American millers by nearly 30 cents a barrel. The government is a protectionist government, but if it favors the millers of the provinces that have a surplus of flour, it will cause a disturbance among the consumers of the provinces that import most of the flour used. The government is thus between two stones. The millers grumble because they are not sufficiently protected to allow them to sell their surplus in the provinces that must import. They have the American competition on one side and the selfishness of Canadian consumers on the other side to contend with. Thus the millers are also between two stones. As the government has the power to do so, it will leave the millers to be ground, taking care to consult its own interest first of all. Canada has "pretty hard sleddin'" under any circumstances. Disinterested sympathy outside of Canada will certainly be with the mill-

ers in this case. They certainly have the right to adequate protection freely granted to other manufacturers.

CORRESPONDENTS who are frightened over the prospect of two great combinations, one to control the spring-wheat supply and the other the winter-wheat supply of the United States, may rest assured that the whole yarn about those combinations is nothing but a sensational newspaper "fake." Such combinations are utterly impossible. So long as the supply of wheat in the country exceeds the consumptive demands of the country, milling must be an industry with a very small margin of profit, and when the surplus ranges from 100,000,000 to 175,000,000 bushels, as it does in the United States, the millers who would run a successful "corner" must manipulate the export grain trade as well as the home and export flour trade. The size of the job renders it an impossible job. Millers in certain quarters may want a good deal, but it is certain they do not want, and do not propose to pre-empt, the whole earth.

WHAT is there about the mill that inspires the poets to fine frenzy so incessantly? Every day we see poems, so-called by courtesy in most cases, on the old mill, the mill-race, the moss-covered wheel, the hopper, the dust, the cobwebs, the grain, the flour and the old miller, with occasional rhapsodies on a pretty daughter of the old dusty. There seems to be no end to the inspiration in and about the mill. It is really a case of "plenary inspiration," to which theologians may safely call the attention of the skeptic, the scoffer and the agnostic. While the rhymesters are thus busying themselves with the unoffending old mill, they totally ignore those other picturesque and poetic affairs, the barn, the cow-shed, the hen-coop, the wagon-house, the wood-shed, the milk-house, the creamery, the tannery, the foundry, the blacksmith-shop, the wood-working factory and the undertaking establishment, any one of which would furnish quite as much foundation for rhymed slush as the mill. The poets even ignore the roller mill, the short-system mill and the elaborate long-system mill. All their divine afflatus affiliates towards the old ramshackle water-power stone-mill of the most antediluvian type. And then, what awful things are perpetrated by these dam-mill, no! mill-dam poets! Such heavesy chanting! Such mixed metaphors! Such mental cholera morbus and intellectual rickets! Recently one of the milling journals in a special number printed a horrible rhymed tragedy of the erotic style, in which the young dusty plays the part of the heavy villain in a regular blood-curdling, bread-souring manner. Most of the milling poems are of the mush-moonshine and pinfeather stripe, perfectly harmless, even in large doses, and very soothing to the nerves. It is easy to fall asleep over them. In fact, it is quite difficult to keep awake over them. The world will probably have to go on reading milling poetry until the last poet has ceased to eat bread, but it would be really refreshing to see some of the talent wasted on the old mill applied to other subjects. Give the old mill a rest. The owner is ashamed of the old thing, and it is inhuman to add to his agony by parading his dilapidated shebang in rhyme.

The Canton Cabinet Filing Case Company, Canton, Ohio,

MANUFACTURERS OF

The New Buckeye Document Case & Letter File; Also All Kinds Office Furniture

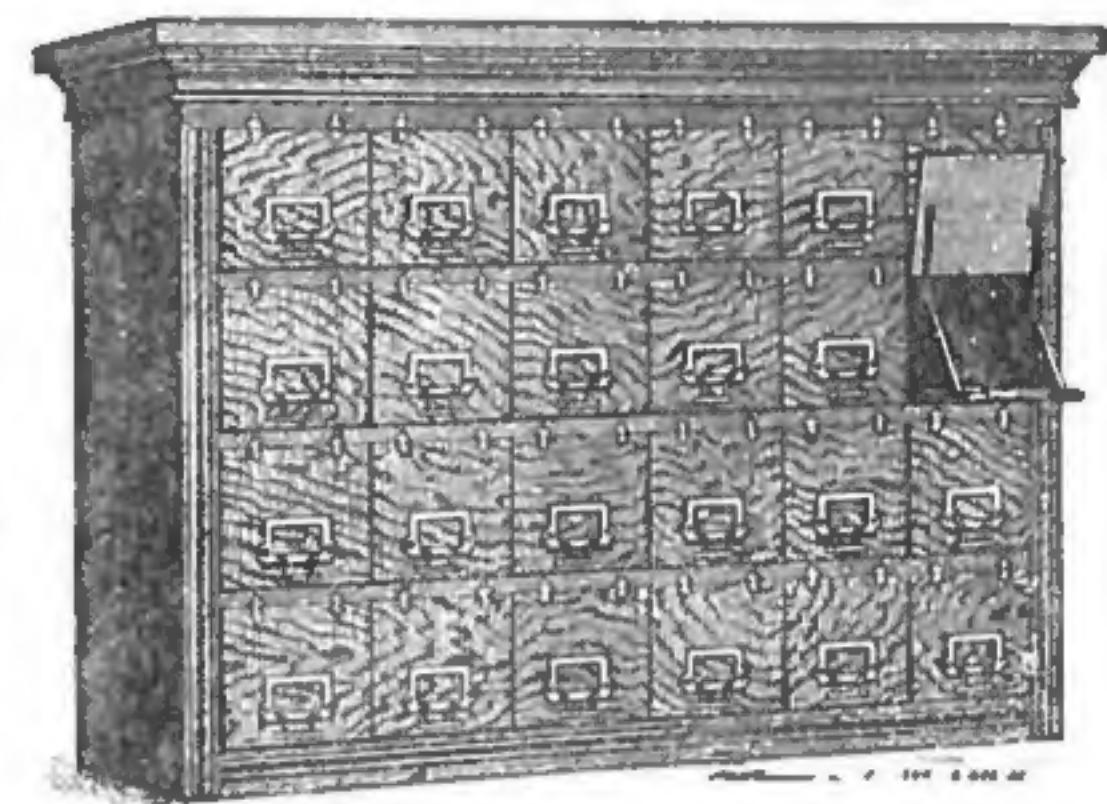


NO. 8 Represents one side of one of our Revolving Cabinet Letter Files and Document Cases Combined. It contains 30 Document Drawers and 8 Letter File Drawers. In filing letters we use first VOWEL of name on front of drawer, and LETTER FOLLOWING first VOWEL on Index Sheet within drawer. We also make more exhaustive systems which contain from 6 to 100 or more Filing Drawers.

NO. 1 Represents one of our small Document Cabinets, for use on desks or brackets. Action of drawer can be seen in the cut. When front is raised inner drawer comes forward, exposing contents of drawer for inspection.

Our Cabinet Files are Considered to be the Most Convenient of Any in the Market. They are Compact, Simple, Complete, Durable and Ornamental.

SEND FOR PRICE LIST AND CATALOGUE.



NO. 1.

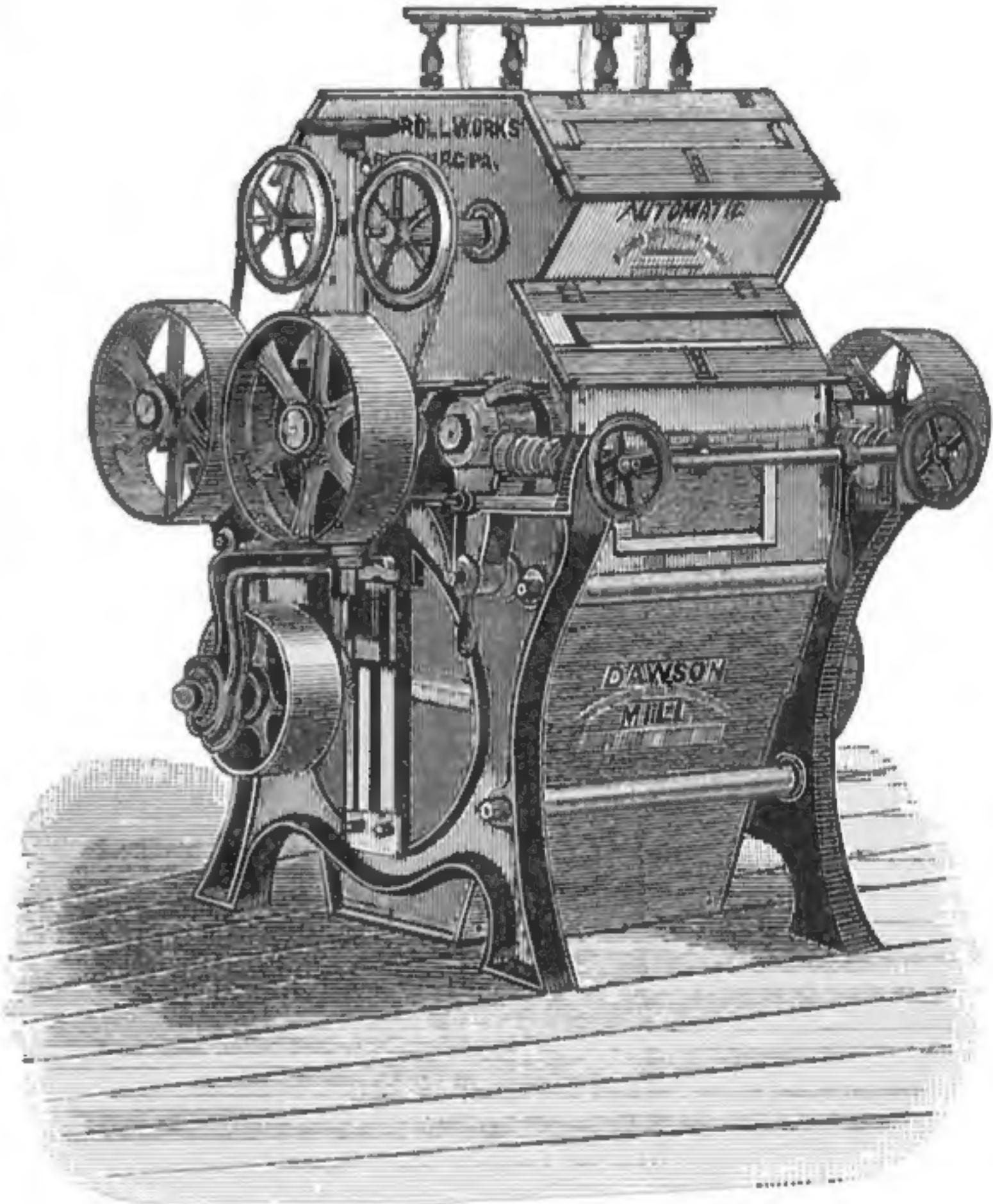
Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

We have a large plant to Re-grind and Re-Corrugate Rolls.

Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT THEMSELVES IN CORRESPONDENCE WITH US.



FOR PRICE LISTS AND CIRCULARS, ADDRESS,

Dawson Roll Works, Harrisburg, Pa.

C. H. BIRD & CO., KALAMAZOO, MICH.

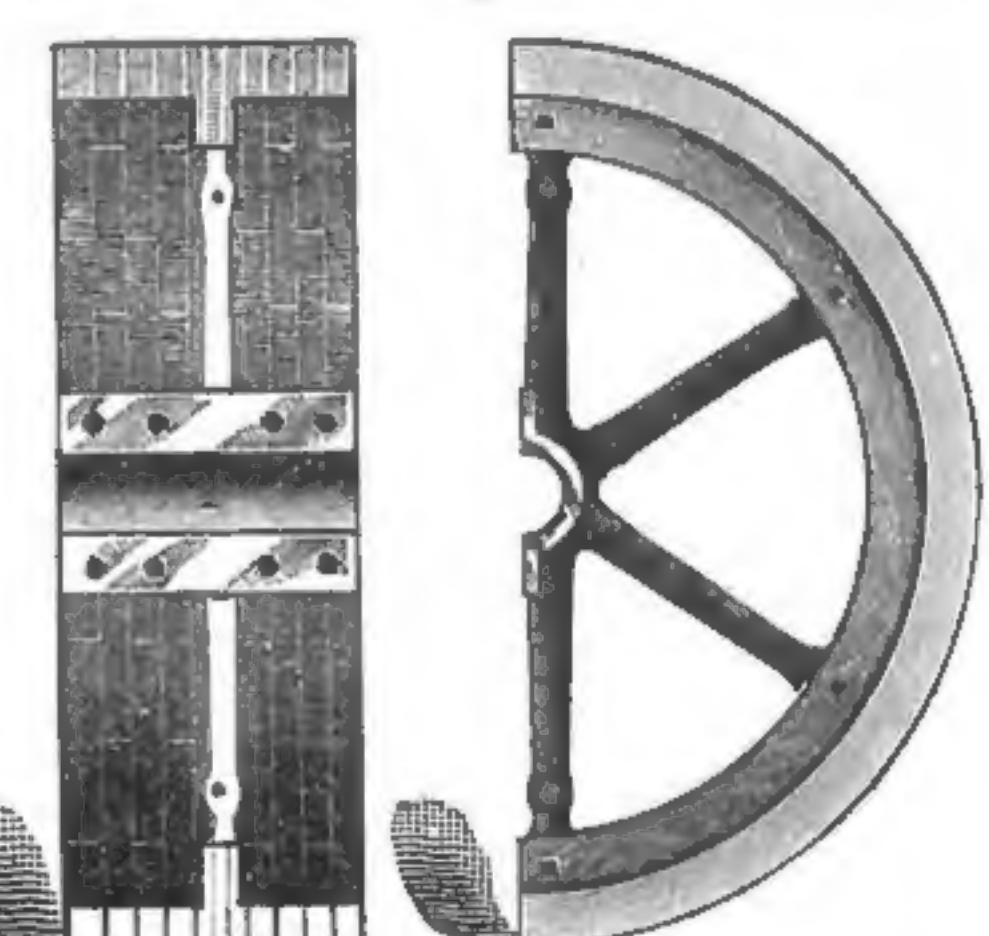
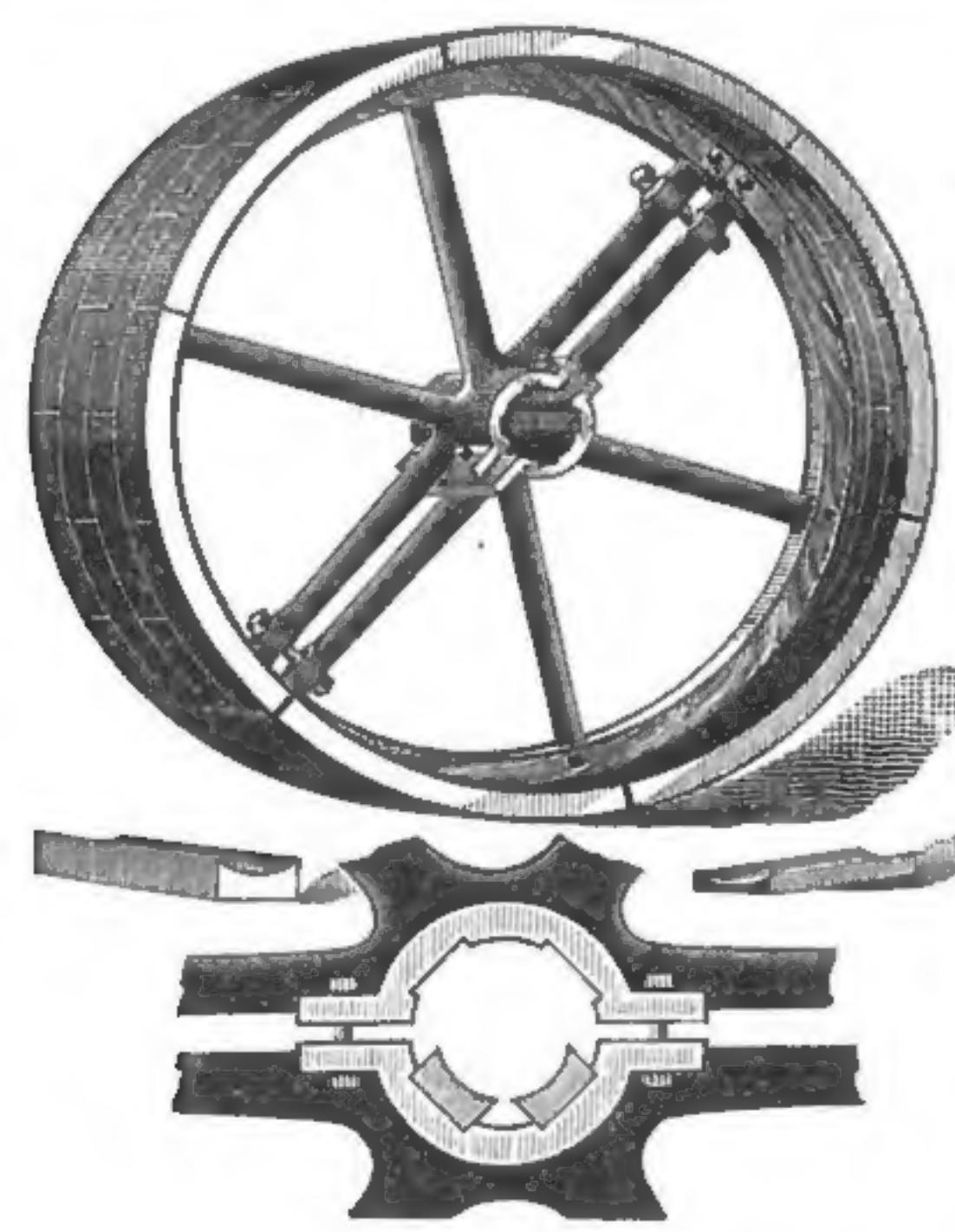
MANUFACTURERS OF PATENT

Wood Split Pulleys

WOOD RIM WITH IRON ARMS.

The Best Pulley on Earth!

Is very easily and quickly adjusted to Shaft. Has Patent Iron Bushings Interchangeable, to Fit Different Diameters of Shafts. Has FOUR or SIX Bearings on Shaft. This fastening never slips. Every Pulley strongly built and perfectly balanced.



SEND FOR CATALOGUE AND PRICE LIST.

THE MILLING WORLD

AND
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL.

JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character. One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning, to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trades.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD, BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

SITUATION WANTED.

Situation wanted by practical miller of 30 years' experience, 50 years old. Best references. Would take good mill on shares. B. D. FOWLER, Carlton, N. Y. 47

WANTED.

Situation by a miller of 10 years' experience. Thirty-one years of age. Married. Can give best of reference. Address, ANDREW YOUNG, Box 82, Mayville, N. Y. 25

WANTED.

A situation in a mill, by a married man of steady habits; 34 years old; no children; had three years' experience in a custom mill; can furnish best of reference. Address, CHAS. BETTIS, Forestville, N. Y. 24t

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office, 10 cents must be added to pay postage.

MILLSTONES FOR SALE CHEAP.

Complete run of millstones, curb, spindle, hopper, etc. GARDNER MORSE, Eaton, Madison county, N. Y. 16

MILL PROPERTY FOR SALE.

In Central New York, on reasonable terms and easy payments. For particulars address B, care of THE MILLING WORLD, Buffalo, N. Y. 14

FOR SALE.

10 Single Sets 9x30 Stevens Rolls.
2 Single Sets 7x12 Ferrers Rolls.
2 Centrifugal Reels.
2 No. 2 Niagara Bran Dusters.
2 No. 3 Prinz Dust Collectors.
1 No. 4 Hunter Purifier.
1 No. 6 Garde City Purifier.
1 No. 1 Pyne Purifier.
1 No. 8 Richmond Brush Machine.
1 No. 2 Silver Creek Scourer.
1 No. 00 Becker Brush Machine, over 50 Run Millstones all sizes, all complete.
Above Machines are in first-class condition and practically as good as new. Address J. B. DUTTON, 115 E. Fort Street, Detroit. 18tf

If you are desirous of obtaining the best Mill or Cob Crusher, send for our catalogue and be convinced that our's fill the bill. Can not fail to please you. They are guaranteed to prove as represented.

C. C. PHILLIPS,

OFFICE, 20 SOUTH BROAD STREET,
PHILADELPHIA, PA.

HORIZONTAL (underrunner.)



NEVER-FAILING WATER-POWER FOR SALE OR TO LET.

Situated at the junction of two rivers, 95 miles from New York City, on the West Shore Railroad. Mill site against track. A NATURAL ROCK DAM with from one hundred to one thousand horse power. Railroad siding on premises. Station, post and telegraph offices in sight. Factory employees to be had at low wages. Further particulars given by addressing.

411

HOWARD FINGER, - - SAUGERTIES, N. Y.

MILL MACHINERY FOR SALE.

One 24-Inch Portable Mill, wood frame, capacity 15 to 20 bushels per hour; new, best make.
One 20-Inch Portable Mill, iron frame, capacity 12 to 16 bushels per hour; new, best make.
One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 18-Inch Vertical Portable Mill, French Buhr Stone, hung on horizontal shaft; capacity 25 to 40 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
Two No. 4 Scientific Grinding Mills, capacity 40 to 50 bushels per hour; new.
A Lot of Elevator Buckets, brand new, best make, any size desired, very cheap.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y.

5tf

THREE "expert" crop guessers are now prominent in the guessing arena. They are: 1. Statistician Dodge, of the Agricultural Department. 2. Prognosticator S. T. K. Prime, of Dwight, Illinois. 3. J. Z. Werst, whose residence is unknown to us and is a matter of perfect indifference, any way. Running over this tripartite catalogue of crop-prophets, it is very difficult to decide which of the three is the best, and quite as easy to decide which is the "Werst." Ahem! Does that go?

THE alcoholic philanthropists who fake the daily newspapers are indulging in their usual convulsions over the alleged "trust" to corner the wheat supply of the United States. Of course there is no trust or corner proposed or possible, but that fact has now eight with the fake writers, who are equally at home in writing interviews with dead men and in making speeches for men whom they have never seen. The fake men get paid for the space they fill, whether the filling be with lies or truth, and that is what the fake men are there for!

ENGLISH brewers and capitalists are buying up breweries in the United States, paying two and three prices in some cases for the properties. Perhaps the next move will be made by English millers, who will invade the United States and buy up all the leading flour-mills. Should the millers come over, and should they show the inclination to pay more for milling properties than they are worth, as the brewers have done, we can give a syndicate of them the names and addresses of at least 5,000 millers who will sell to them so quickly that their conservative British heads will fairly swim.

PESSIMISTIC croakers who write about the "ruin" of the wheat trade of the United States by the competition with India and Russia should not fail to note that the "ruined" crop of 1888 in this country has up to March 1, 1889, permitted the exportation of 33,705,970 bushels of wheat grain and 6,227,466 barrels of wheat flour, an equivalent of about 64,000,000 bushels of grain. This has been done in spite of Russia's second abnormally large crop and in spite of the increased demands made on both Russia and India by the importing countries of Europe. An average or abundant crop in this country this year will restore things to "sta'n quo."

ALMOST without exception the reports on wheat crop conditions in the United States up to date are most favorable. The Pacific Coast has had abundant rain, and in the winter-wheat section generally the crop is in good shape. Here and there is reported a little winter-killing, but the reported damage by all adverse elements is too small to have a noticeable effect on the general situation. Millers may with confidence look for a better crop of wheat this year than was gathered last year. Of course, it is too early to calculate on the harvest, but it is encouraging to record a good beginning, which is, according to the whiskered old adage, half the battle.

LABOR ORGANIZATION A FAILURE.

A. B. SALOM.

Organized labor in the United States is a failure. Despite all the exertions of interested individuals and societies to make it seem otherwise, labor to day in this country is farther than ever from successful, harmonious co-operation and organization. A glance over the field reveals absolute and hopeless discord, endless wrangling, bitter hostility and innumerable factional wars, instead of wise union, pacific counsel, intelligent fraternity and thorough unity of aims and instrumentalities. The greatest organized body of labor has dwindled from a really magnificent army of laborers, potent under wise leadership for incalculable good, to a mere handful of disappointed men, absolutely impotent either to understand the situation of labor as a whole or to invent or apply any instrumentality for improving that situation. Dry rot and quick consumption have attacked the greatest body, and all the minor bodies are in an equally discouraging condition. There is not to-day a single body of laborers that occupies so strong a position, either in influence or membership, as it occupied a year ago. Knights of Labor, Brotherhoods of all sorts and co-operative societies, all show the same evidences of quick and cureless decay.

Observers have no trouble to discern the causes of this deplorable disintegration. Those causes are patent. The laborers are too numerous and too ill-informed to be held in one body. There are too many lines of labor to be controlled by the men in any one line. The great number of interests concerned engenders hostility that forbids harmony. What seems wholly good for one set of men seems wholly bad and undesirable for another set of men. Ambitions, jealousies, hatreds and injustice have been fostered. Hot-headed officers of the army of workers have led the army into war after war that was senseless and hopeless from the start. The soldiers, led into the army by attractive promises of great and glorious things, have been driven out of the ranks by defeat and discouragement, leaving the officers alone in their solitary glory. Every battle was won before it was fought and inevitably lost after it was fought. The workers concerned in all these showy and costly sham battles have been reckoning the cost to themselves, and they have come to the conclusion that the battle of organized labor has been chiefly a foregone defeat for labor. Under the scourge of repeated defeats, it is not surprising that they have decided that discretion, which saves something, is better than foolish valor, which would go on to the end of the chapter losing them every thing.

Among the valuable things learned by American laborers, or at least by the intelligent men among them, in their unsuccessful crusade, may be named several that will be valuable to them in the future. They have learned that public sentiment will not uphold labor when labor is wrong. For years it has been the favorite doctrine of some of the foul and dangerous men, who have aimed to lead labor, that in its righteous battle against capital labor could do no wrong and capital could do no right. Trials, convictions, sentences and decisions have taught misled laborers the folly and the danger of that theory. Experience has taught them that law must protect all, that the more one man claims for himself so much the more must he allow to his neighbor. They have learned that the laboring man who, incited by fanatics, burns and destroys is regarded by the law, not as a martyr in a just cause that endows him with special privileges and exemptions, but simply as a felon, as a law-breaker, who must answer to the law with every other felon and law-breaker. Learning that much is an incalculable gain for labor, because, having learned that they are equal to but not superior to all others before the law, laboring men are ready to turn their aggregate strength from lawless to lawful methods of warfare. Having learned that arson, riot, murder, wanton destruction of property and impudent infraction of the laws of individual and public rights are crimes that will be punished, laborers will no longer attempt to win justice by open criminality.

Another valuable lesson learned by organized labor is that

labor, instead of occupying the commanding position so often claimed for it, really occupies the less advantageous position. Ignorant fanatics tell labor that without labor the world will stop, commerce will die, trade will disappear and capital will be annihilated. Laborers have learned that, while all these disasters may follow the cessation of labor, the general ruin would surely involve labor. They have learned that labor is empty-handed so soon as it leaves the bench or the shop or the mine. They have learned that labor, empty-handed, must starve even sooner than capital, which can at least buy until all accumulations are exhausted. They have learned that labor depends upon capital. Co-operation, failing in hundreds of cases in various forms, has shown the inability of labor to create something out of nothing, or to make and sell without capital or experience. It has shown agitators the fallacy of their own teachings, and in doing that it has opened the eyes of the men most intimately concerned, while at the same time it has weakened the influence of the demagogues who have been misleading labor for their own benefit.

Then the agitations of the past few years have been wholly fruitless to labor? Not at all. In learning its true relations to capital, to production and consumption, to law and society, labor has really advanced to a higher plane and become more potent to work out its own good. It has advanced from a distinctly lawless force to a law-fearing and law-abiding force. It is now in a position to discard wholly the weapons of savagery and barbarism and to employ the weapons of progress and civilization. For arson, maiming, riot and similar cognate disorders it is now prepared to substitute protest, debate, arbitration. Instead of entering into a contest with a prejudiced and unreasonable spirit, it is now becoming willing to listen to reason. Instead of claiming that labor is all holy and right and capital is all unholy and wrong, it is now willing to admit that each is partly holy and right and each is partly unholy and wrong, and that out of the wrong and the right in both, with calmness and justice, with honor and reason, equity for both may be evolved. Disintegration of organized labor can not wipe out these good results. Experience has brought reason to the violent, law to the lawless, justice to the unjust and right to the wronged, and these, based on the public sentiment, will remain. Labor is stronger, not weaker, because the demagogues are unable to keep up the organizations that have fed them at the expense of labor. With the demagogues dies lawless labor. In its place comes law-abiding labor.

SOME FACTS ABOUT FLOUR.

Wheat contains a ferment in itself, besides those introduced from without, which tends naturally to the injury of the flour. This ferment, commencing at the embryo, is insoluble, has the same properties as organized ferments and is destroyed only by the temperature of boiling water. Heat and moisture are essential to its activity, and a temperature of 75° to 80° F. is particularly favorable, so combined, rendering the gluten fluid. As this ferment is most largely found in the bran, the milling process that most thoroughly prevents its disintegration and mixing with the flour is the best, while the strong action and heat of buhrs are liable to increase it. This heating is impossible in roller milling. The acidity of old flour is the consequence, not, as is said, the cause, of the disappearance of the gluten. Gluten appears to exist in wheat in the same relations as starch, and it contains a variable amount of moisture. Certain bodies, like salt, retard its disintegration, while weak acetic acid renders the process immediate. So, if good flour is mixed with salt water, the gluten can not be obtained until it has stood long enough to hydrate the gluten, when it can be obtained at once by associating it with a quantity of wet gluten. In the case of flour dried by heat, the gluten exists with its natural qualities. The absence of moisture prevents the action of ferment, but does not destroy it, and it will again act under the above named influences. In order to procure the flour that will keep a long time, we should mill preferably sound hard wheat, eliminate the bran by a

proper system of milling, dress the flour high, and store it where it is inaccessible to heat and moisture. The French military authorities have adopted air-tight iron vessels for the storage of their flour.

THE "NATIONAL" TURBINE WATER WHEEL.

Users of turbine water-wheels will study with profit the illustrations of the celebrated "National" wheel presented

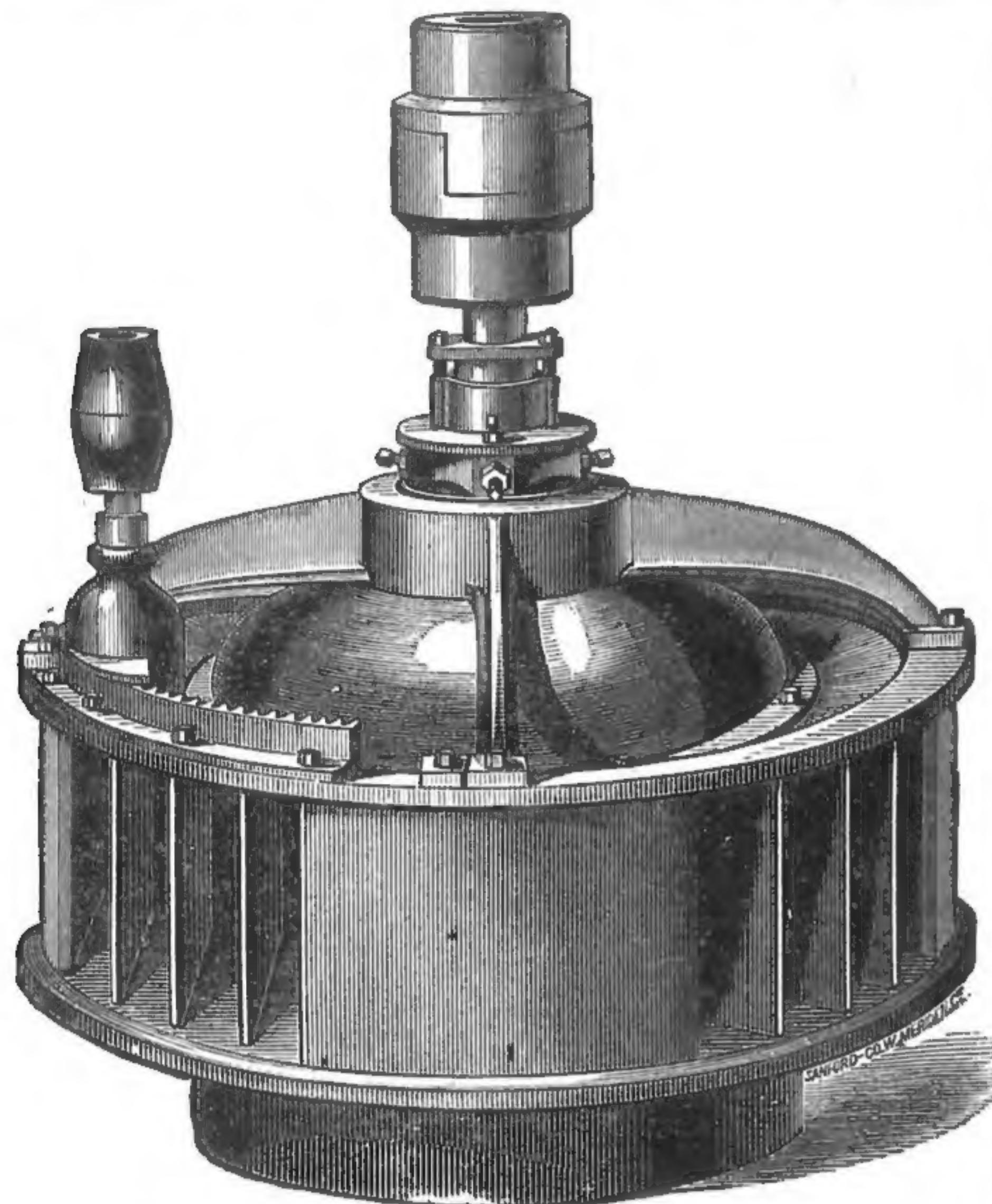


FIG. 1.—THE "NATIONAL" TURBINE, COMPLETE.

herewith. This wheel is manufactured by the well-known Case Wheel and Mill Company, of Bristol, Conn., who claim that it is "the best wheel in America." Millers, particularly, are interested, and we invite their attention to the engrav-



FIG. 2.—"NATIONAL" TURBINE, DRAWN FROM CASE.

ings and to the following points of advantages claimed by the makers of the "National" turbine: 1. Simplicity of construction. 2. Freedom from liability to get out of order. 3. Decreased liability of leakage. 4. Easy movement of the gate, under both high and low heads of water. 5. Perfect adaptation to all heads. 6. Adaptation of large wheels to small streams. 7. Its retention of speed on part gate. 8. Retention of the same percentage of power on the water used on part as on full gate. 9. It is not affected by back-water, except in the loss of head. One of the peculiar advantages of this wheel over other wheels is that it enables

operators to use large wheels on small streams, as, when having a full flow of water, all the chutes can be opened and so obtain the full power of the stream, also, when having a limited quantity of water, as many of the chutes can be closed as necessary to reduce the size of the wheel to the stream and obtain as good a percentage of the water as a small wheel running at full gate. The reason why this wheel gives so much better results on partial gate than other wheels is that it gives a full chute and full bucket so far as used, and swaged to the same extent as when running at full gates; while some other wheels, when running on partial gates, open each chute a little, leaving the water broken and the bucket unfilled. A glance at the engravings will make plain the construction of the "National." In Fig. 1 is shown the



FIG. 3.—"NATIONAL" TURBINE WATER-WHEEL.

wheel complete. In Fig. 2 the wheel is shown as it appears when drawn out of the case. In Fig. 3 is shown the direction of the water on the bucket, and also the lines of the buckets and the guides. In Fig. 4 are shown the interior lines of the wheel. All the parts of the "National" are interchangeable. The manufacturers furnish full instructions for setting the wheels in their illustrated catalogue. No user of water-power can afford to be ignorant of the advantages of turbine-wheels in general and of the "National" turbine in particular. Millers whose mills are located in places where water-power is available and abundant will find the study of turbines attractive and profitable, and their appli-

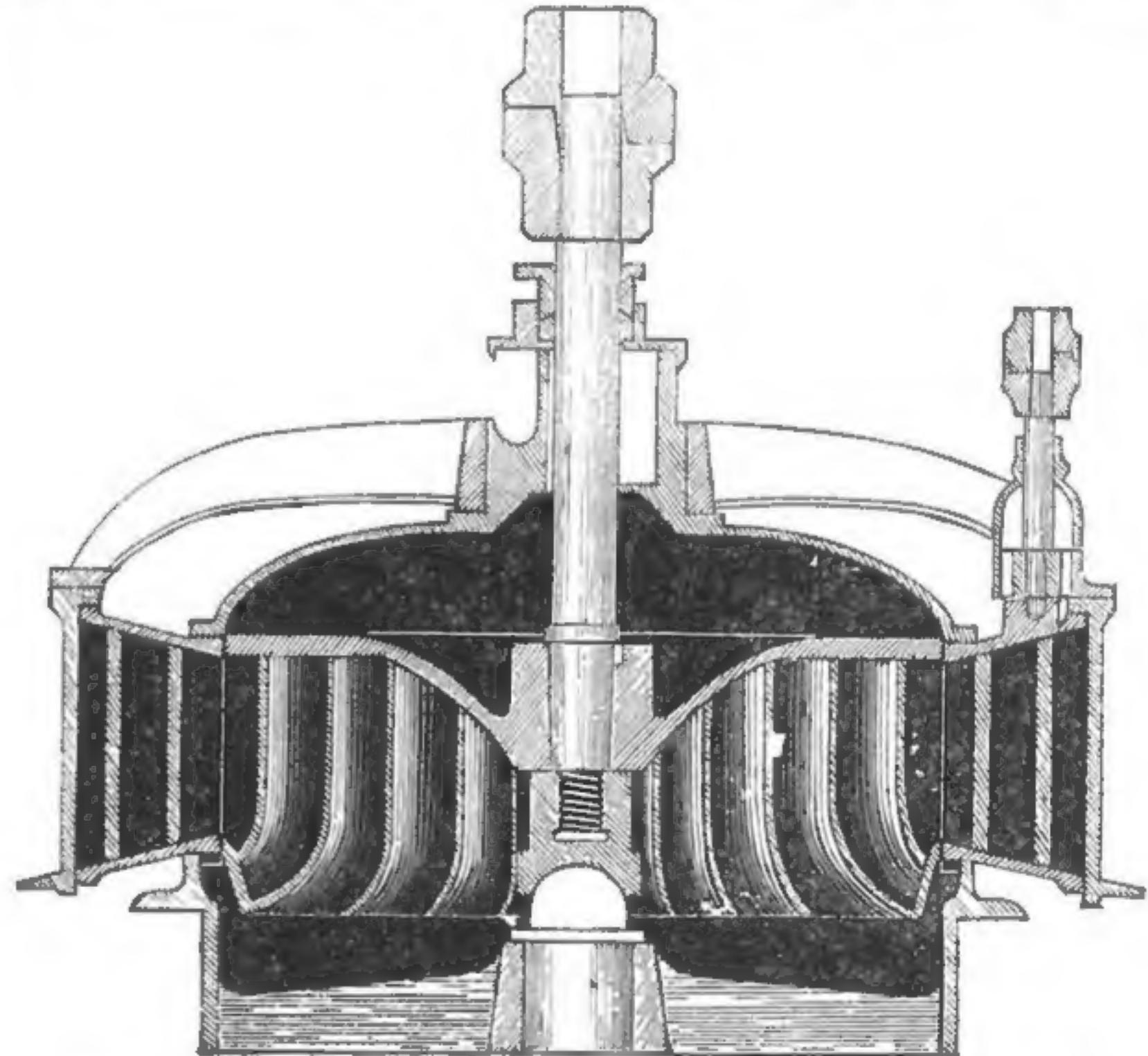


FIG. 4.—"NATIONAL" TURBINE, INTERIOR LINES.

cation will be still more profitable. The Case Wheel and Mill Company have something to say to all such millers, and they say it in their catalogue. Address them for a copy.

NORTHERN OHIO MILLERS IN CONVENTION.

The Northern Ohio Millers' Association held a convention at Bucyrus, O., March 12. The meeting was held in the Deal Block, and according to the neat programme sent out by the H. J. Deal Specialty Company the following milling firms were represented: C. A. Andrus, of Pettis & Andrus, La Grange; Thos. F. Gray, of Heyman & Co., Monroeville; M. H. Davis, of the Shelby Milling Co., Shelby; H. Plank, of

Plank, Gray & Co., Galion; W. S. Bacon, of W. S. Bacon & Co., Tiffin; A. J. Gilbert, of Gilbert, Waugh & Co., Mansfield; E. J. Sourwine, Republic; John Crawford, of Crawford Bros., Shiloh; A. Mennel, of the Isaac Harter Milling Co., Fostoria; F. P. Klahr, of Einstell & Co., Tiffin; F. W. Schick, of Bowers & Co., Bucyrus; David White, G. K. Beigler and F. A. Vollrath, Bucyrus; I. S. Reinhart, of Reinhart & Co., New Washington. The officers are: W. W. Cockley president; M. H. Davis vice-president; A. J. Gilbert secretary and treasurer. The executive committee are: F. P. Klahr, Tiffin; H. Plank, Galion; J. P. McConnell, Clyde; J. Mennel, Fostoria, and R. Heath, Shelby. The stenographers were Misses Daisy Deal and Annie Keller. Those who "were there to assist" were: Horace Deal, H. J. Deal, R. E. Deal, Chas. A. Deal, Fred B. Deal and a representative of THE MILLING WORLD.

Considerable business was transacted during the meeting, and the gathering was in every way pleasant and profitable. Every one present received flour-trier tablets from the H. J. Deal Specialty Company, and all the millers received a Deal flour-trier. The meeting was called to order by vice-president M. H. Davis. The minutes of the previous meeting were read and approved and the regular order of business was taken up. Mr. Gray, of Monroeville, addressed the association on the benefits to be derived from membership in the organization. He was followed by E. Plank, of Galion, A. Mennel, Mr. Andrus, of La Grange, F. A. Vollrath, of Bucyrus, Messrs. White, Schick, Sourwine and Andrus. It was moved and seconded that Mr. Andrus prepare a paper and read the same at the next meeting, on the subject of exchanging flour for wheat. It was moved and seconded that the next regular meeting be held on the third Tuesday in April. Norwalk was chosen as the place of the next regular meeting, to be held in June. F. A. Vollrath and Mr. Schick, of Bucyrus, joined the association. It was moved and seconded that a vote of thanks be tendered to the Messrs. Deal for the use of their rooms and for the kindness of their treatment during the day, after which the meeting adjourned.

POINTS IN MILLING.

THE crease-dirt question will never be settled by the mere assertion that it does not exist. The absence of crease-dirt is not proved by the statement that the grain may be so manipulated in grinding that the dirt does not become visible in the flour at any stage. There is something in the seam of the wheat berry that is not coating or flour. It is found in the white wheats of Oregon, Washington and California, and it is found in the hard wheats of Dakota, Minnesota and Manitoba. It is present in New York and Pennsylvania, Ohio and Kansas wheat. Whatever it may be, it certainly is not flour. It is not bran. What is it? Is anything gained or proved by saying that it is not there or by calling it something beside crease-dirt or seam-dirt?

MANIPULATION may fail to reveal this dirt, but, unless the dirt has been hammered, gouged or chiseled out of the seam in the cleaning-machines, before the grain is broken, the failure to reveal its presence simply means that it has gone into the flour, never to be separated from it. The color of the flour will show where the dirt has gone. Because the miller has avoided handling his material so that this dark stuff is collected in visible quantities, he can not consistently claim that it does not exist.

IT may be taken as settled that no grain-cleaning machine is capable of removing absolutely and entirely the dark stuff from the seam of the unbroken wheat berry. It may be taken as equally settled that, if the berry be split to remove the dark stuff, there will be a mixture of the dark stuff with both bran and flour. Until wheat is grown without a crease, and until dirt ceases to obey its natural propensity to lodge in small spaces, so long will the crease-dirt question vex millers in actual practice, no matter what theorists may claim. A miller will doubtless feel comforted when he reads that there is no crease-dirt in wheat, but, when he goes to

work and grinds on the theory that the black dirt in the seam is only imaginary, he runs against a snag that proves to be painfully real.

WHAT has become of the general practice of making coarse-grained flour that prevailed only recently? Little is heard nowadays of the value of large-grained flour, and at present the striving all seems to be after cleanliness and freedom from impurities. Millers have learned that very large-grained flour may not be sharp, while very small-grained flour may be decidedly sharp. All sorts of variations in bolting have been tried to make flour coarse and sharp, but gradually the trials have been abandoned and it is settled that specky and coarse-grained flour will not meet the wants of the markets. Bakers who have tested some coarse-grained flours have found them altogether undesirable in use. Certain wheats will produce sharp flour, whether the grain be large or small. Hard wheats will always produce a certain degree of sharpness in the flour made from them, whether the bolting be through fine cloth or coarse cloth. Soft wheats will yield flour with a certain degree of flatness, no matter how coarse may be the cloth used. Even the middlings from soft wheats will feel flat.

CORRECT grinding implies a product that is uniform in grain. Bakers understand the importance of uniformity in the granules of flour when it comes to the hard test of bread-making. Grading and sizing are operations that can not be too often insisted upon. These operations properly begin with the wheat berry, and the idea of sizing should not be abandoned until the grain is graded, the middlings are made, the purification is accomplished, and the middlings are again sized, and so on until the process is completed. The gradual-reduction system is one long series of sizings of stock from the berry to the fine flour. The highest bread-making quality will be secured only when the most thorough sizing is achieved, all other processes, of course, being equally well done.

WHY is so little said nowadays by the European millers, or, rather, by certain theoretical European flour-scientists, about the "execrable quality" of the American flour that finds its way to Europe? Is the very bad wheat of the 1888 crop in Europe so very, very bad that the inferior 1888 crop in America seems so much better in comparison that fault-finding feels like stopping before it begins? I have seen some specimens of English wheat of the 1888 crop, and after seeing it I do not wonder that English millers find it difficult to make respectable flour out of it. The grains are large and plump in appearance, and the specimens were said to be from a crop of 60 bushels to the acre, that weighed 63 pounds to the bushel. All the value was in the appearance. The grains acted like so much sponge in grinding, and the interior seemed to consist of almost any thing excepting flour. The grains would flatten out and paste up on the rolls, and grinding seemed next to an impossibility. After seeing that grain I am willing to credit all that the British grain-handlers and millers are saying against their crop of wheat, and I am also ready to credit British millers with a great degree of patience in grinding such grain. In France and other European countries the millers are burdened with the same difficult stock, Austria-Hungary alone having decent wheat from last year's crop.

MANY men, who are directly interested, would be amazed to learn the true "capacity" of some of the mills that figure as concerns of 200 to 1,500 barrel "capacity" in recently published lists that are paraded with a flourish of trumpets heralding and vaunting their "accuracy." Probably the compilers of those lists believe that they are really "accurate," and they are not responsible for the fact that inaccuracy prevails in them, for they must take the figures that are sent them in answer to their questions. It is easy to find in the lists mills rated too high by 20 to 60 per cent., and in some cases by 75 per cent. In basing "restriction" calculations upon these fanciful ratings, it is easy to understand how far astray the allotting agents may innocently go, and

how perfectly ineffective a so-called "partial shut-down" may prove in relieving congested markets. Not long ago I visited a mill rated at 600 barrels daily. The building had been planned for that capacity, but the equipment of machinery called for a scant 200 barrels daily. How many mills figuring pretentiously in certain lists would dwindle similarly in importance under investigation? The men who propose to "control" the flour output must first find out more about the mills which they aim to control. At present they know as little about them as they know about the real ages of the amiable unmarried women of their acquaintance.

DO NOT expect to find your \$5,000 mill always successfully competing in quantity, quality, cost and market value of product with your nearest rival's \$10,000 or \$30,000 mill. The larger the mill-plant, the cheaper will be the work of turning out flour. The big plants have great advantages, so far as comparative cost is concerned, over the small plants attempting to grind on the same general plan. Fortunately for the millers of moderate means, it is no longer necessary for the 50, or 60, or 75-barrel mills to copy the elaborate systems of the 500, or 900, or 2,000 or 5,000 barrel mills. It is one of the most notable triumphs of American practice that the small mills have been enabled to live and flourish in competition with the large mills.

ROLL corrugations are no longer a stock subject for discussion by millers, writers and manufacturers. Experience has settled the provinces of the various corrugations satisfactorily, and all concerned appear to have accepted the settlement as final. Systems of milling are also being settled, and mill management is a thing to be settled in each case as circumstances control. At present there seems to be small prospect of change in the milling industry. Something like permanency begins to be felt and seen. Of course, change may come, but any change in the near future that is to make much impression must be a "revolution" of some sort. One "revolution" appeared to be promised last year in the much-talked-of Haggenmacher rotary sifter, but it has failed to "pan out," and the horizon shows no new cloud that promises to overturn all existing things connected with milling in the United States.

COTEMPORARY COMMENT.

Last month we tendered the *Northwestern Miller* an apology for accusing its business manager last fall of doing a certain paltry action. Later information indicated that a possible injustice was done him, and we simply did what is customary among gentlemen—apologized. The business manager attempts to make it appear that this apology was a retreat from the position we took in regard to his bogus resolution. He knows better. We simply wished to do him justice in one particular, and with customary effrontery he tries to twist it into something else. Casting pearls before swine is a proverbially foolish thing; apologizing to a bully for a possible injustice to him seems to be equally so.—*Chicago American Miller*.

We hear of a lot of old corn shipped from Chicago, having passed both State and private inspectors, grading steamer in New York on arrival, but it doubtless got away under proper grade. We learn of a cargo of Baltimore corn graded mixed, for we have long ago found the addition of the adjective "old" helped nobody and deceived many, was rejected by buyer in London, and on arbitration by experts it was decided to be old and buyer compelled to accept.—*Baltimore Journal of Commerce*.

It is worthy of note how quick the American engineers and millers are to adopt improvements in milling. The latest instance is in the direction of scalping the breaks. The ordinary scalping-reels are now described as much too harsh in their treatment, and an American cotemporary sums up the five leading points in present milling as follows: "The percentage of our patent depends, first, upon the quality of the breaks; second, upon the action of the scalping-reels, whether harsh or gentle; third, upon the purification of the middlings and the success of the two pre-

ceding operations; fourth, upon the manner of the middlings reductions; and fifth, upon the proper bolting of the reduced middlings. No one of these operations can be designated as paramount to the others, as they are of equal importance; but the scalping-reels are in general at the present time mostly to blame for results below what might be attained, simply because it has not been considered so necessary to secure a gentle and perfect bolting action in them." Evidently the principle of rotary sieves for scalping is getting as popular in America as it is in this country.—*London Millers' Gazette*.

A review of the export movement of wheat and wheat-flour during the past fiscal year shows very conclusively that this country is in no danger of losing its foreign market for wheat and wheat-flour for some time to come, and that it still displays a very strong hold on the British market, notwithstanding the oft-heard statement that American flour is losing its hold on that market."—*New York Produce Exchange Reporter & Miller's Guide*.

The bulletining of a cold wave or the registering of a chinook is now affecting markets favorably or unfavorably as the one or the other appears. Traveling crop experts, too, are busy, and each tells a tale as he is paid for the telling. Even the bulletins of home experts, with imaginations wide enough to move armies of Hessian flies through Illinois while the fields are buried under snow and ice, and to tell flippantly of the bright prospect of the spring-wheat crop of Dakota in January, are not without their effect and uses in making up current crop gossip.—*Minneapolis Market Record*.

A REPORT from St. Louis on March 21 says: The agreement of the Central Millers' Association, formed some weeks ago at St. Louis, regarding production and uniformity of prices, is in danger of being disregarded. St. Louis millers appear to have made up their minds that they are holding the bag for the country mills, and they have grown tired of this thankless and unprofitable task. While these outside mills were selling their production readily, local millers have seen their trade dwindle to insignificant proportions. At yesterday's meeting of the Association an attempt was made to do away with the agreement, at least until next harvest, but it failed. The whole business, however, is in a very shaky condition.

AUSTRIA-HUNGARY, the birthplace of gradual-reduction milling, is a near neighbor to France, yet France is taking her most important lessons in modern milling from Mr. J. Murray Case, an American missionary, who can offer the French millers a genuine short system of grinding that will enable them to utilize successfully their small capital.

SPECIAL NOTICES:

LIBERAL OFFER.

With a view of increasing our subscription list, we will send a copy of R. J. Abernathy's new book, "The True Short System" (Price \$2.00) and "The Milling World" for one year at the very low price of Two Dollars. Renewal will be treated same way. This offer will only continue for a limited time. Now is your chance. Send in your subscriptions at once.

Address,
THE MILLING WORLD, BUFFALO, N. Y.

BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

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Made of the best double-refined English cast steel. All work guaranteed. For terms and warranty, address, GEO. W. HEARTLEY, No. 297 St. Clair Street, Toledo, Ohio. Send for Circular.

N. B.—All Mill Picks ground and ready for use (both old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

ALSO MANUFACTURERS OF
Shafting, Pulleys, Hangers, Coupling, Machine and
Jobbing, Etc., Etc.



A SIMPLE TEMPERING PROCESS—Some recent trials show that very thin blades, as flat springs and cutlery blades, can be effectively hardened and tempered by heating them and thrusting them into a mass of mineral wax, crude paraffine. The needles of sewing-machines and small drills have also been so treated successfully.

GENERAL NOTES.

GREAT BRITAIN reports a regular flood of so-called "trusts." During the year 1888 there were formed in that country, according to the London "Statist," 70 registered trusts with an aggregate capital of \$350,000,000. The present year promises to be equally prolific of trusts, as January and February record the formation of 13 trusts, with an aggregate capital amounting to \$43,750,000. American grumblers at American trusts will do well to study these figures.

THE COST OF GROWING HARD SPRING WHEAT.

Writing from Dakota to a New York journal, a correspondent says that the cost of growing No. 1 hard spring wheat is about \$4.65 an acre. This is with new machinery and does not include interest on cost of land or profit on men. To a farmer who can run eight horses, which he considers the most economical method, he figures the cost of raising and harvesting 100 acres as follows: Plowing with two teams, ten days at \$4 per day, \$40; dragging three times, 60 to 75 acres per day, at \$3 per day, \$15; seeding with press-drill, 20 acres a day, at \$2 per day, \$10; seed, at an average of \$1 per acre, \$100; cutting and stacking with header, \$60; threshing and delivering to elevator an average of 20 bushels per acre, \$200; allowance for wear and tear on teams and machinery, \$40; making the total cost for 100 acres only \$465. To have this work done by contract will cost \$600, or \$6 per acre. According to this writer's figures it will cost 23½ cents to raise a bushel of wheat. The harvesting is done in the James River valley largely with headers which, with ten horses and seven men, cut and stack thirty to forty acres per day, threshing the grain and delivering it to the elevator. These are scattered along at an average of about one every six miles on the lines of railways. This work costs on the average 10 cents a bushel.

ATTEMPTS to sow winter wheat in the regions devoted to spring wheat show that the grain is liable to be badly winter-killed. It is safe to say that winter-wheat culture has already been pushed to its extreme northern limit, and that spring wheat will be the only wheat grown successfully in the areas now devoted to it.

ALLEGED MILLING POETRY.

ODE BY "BANG" TO "WHANG."

O whimsical-whimsical, word-whacking "Whang,"
Away in green Ireland thy harp thou dost twang.
With the quill of a goose instead of a stick
Thou dost thy fine work on both "Byron" and "Kick."
But say, gentle "Whang," in thy grinding and screening
Appears no late jibe on the point of "wheat-cleaning."
And where those brave words about the land visible
That recently tickled the American risible?
And what has become of the gold of the Briton,
That promised to purchase the land that we sit on,
To buy all "No. 1 Hard" of Dakota,
Montana, Idaho and fair Minnesota?
Why silent, dear "Whang," on these matters of business?
Did the size of the job induce a queer dizziness?
Come again to the front, O, thou gentle "Whang," wage
The battle of words in thy long-system language!
Chant John Bull triumphant and Jonathan trembling;
Chant British buyers in our wheat-fields assembling;
Chant wheat-growers Russian, Indian, Austro-Hungarian,
Whelming Great Britain in blue ruin agrarian;
Chant British milling, that cooks, dries, whizzes and washes,
Making flours that, by Jago, are "nondescript" mushes;
Unfrighted by sight of the Irish constabulary,
Pour out on these points thy choicest vocabulary,
And plough for the millers a long merry furrow
All the way from Duluth to green Maryborough!

DULUTH, MINNESOTA, 1889.

BANG.

DIS-SIMILAR.

My hair is white, but not with years,
Nor grew it white
In a single night,
As men's have grown from sudden fears!

BYRON.

My head is white and so's my beard,
And both changed so
A while ago
Whilst six centrifugals I cleared!

"WHANG," IN LONDON MILLER.

White is my hair, bald is my head:
Both came to me
Full recentlee,

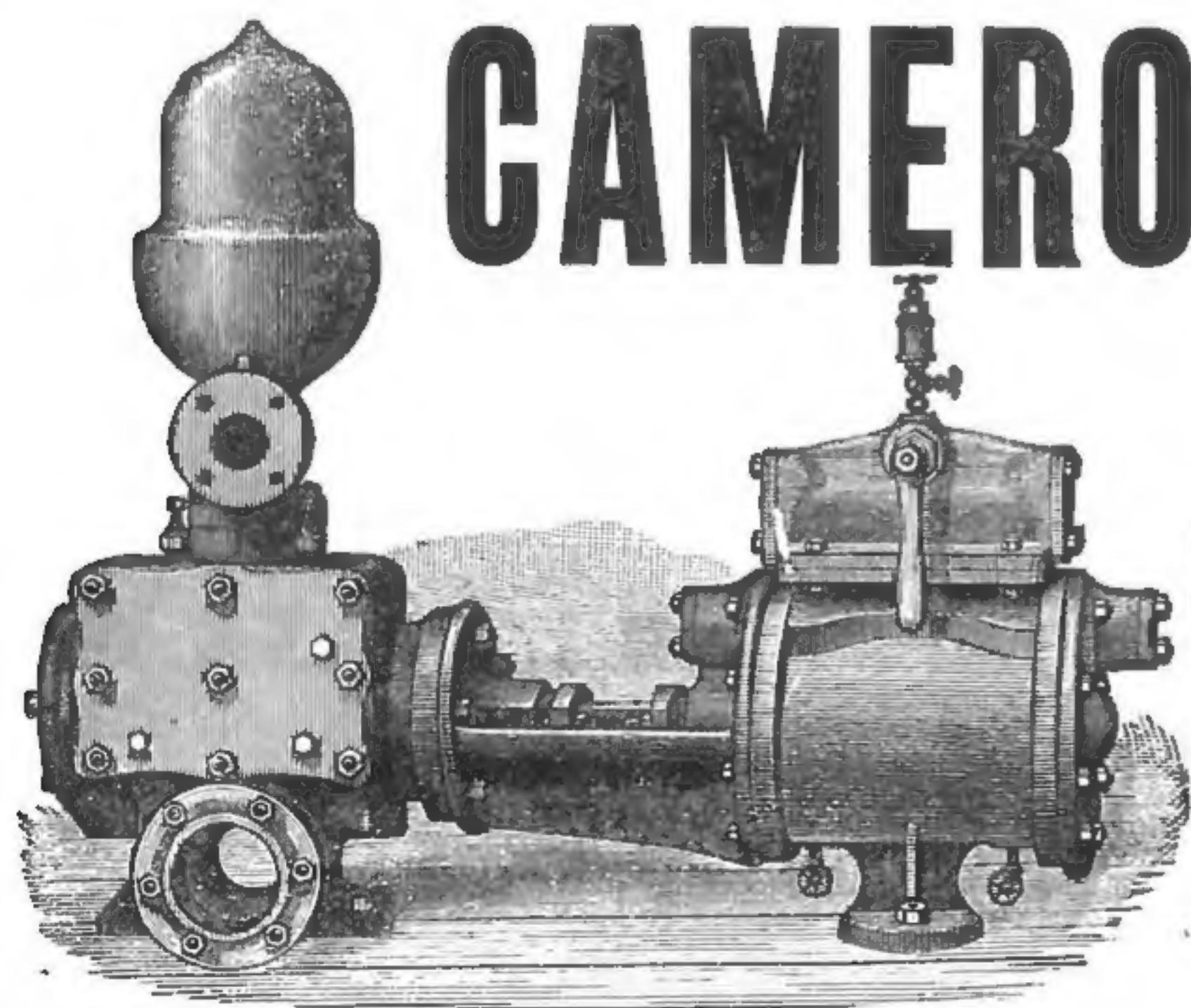
While milling "pomes" by "Whang" I read! BANG.

PROPHECY.

1889!

Yankee wheat-crop will be fine,
Russian, Indian, short and bad.
Argentine, none to be had.
Australia scorns the taker
With 3 bushels to the acre.
European, in general, thin.
Yankee wheat will call the "tin."
Yankee flour so strong and nice
Captures highest English price.
Yankee millers keenly guard
No. 1 Northwestern hard,
Allowing no one to dump any
Into the Scandinavian Elevator
Company
Through agent or speculator!
Jonathan the land will hold,
Jonathan will guard his coasts,
In spite of boasting British gold,
In spite of all competing ghosts!

BANG.



CAMERON STEAM PUMP

THE STANDARD OF EXCELLENCE.

SIMPLE! COMPACT! DURABLE!
"NO OUTSIDE VALVE GEAR."

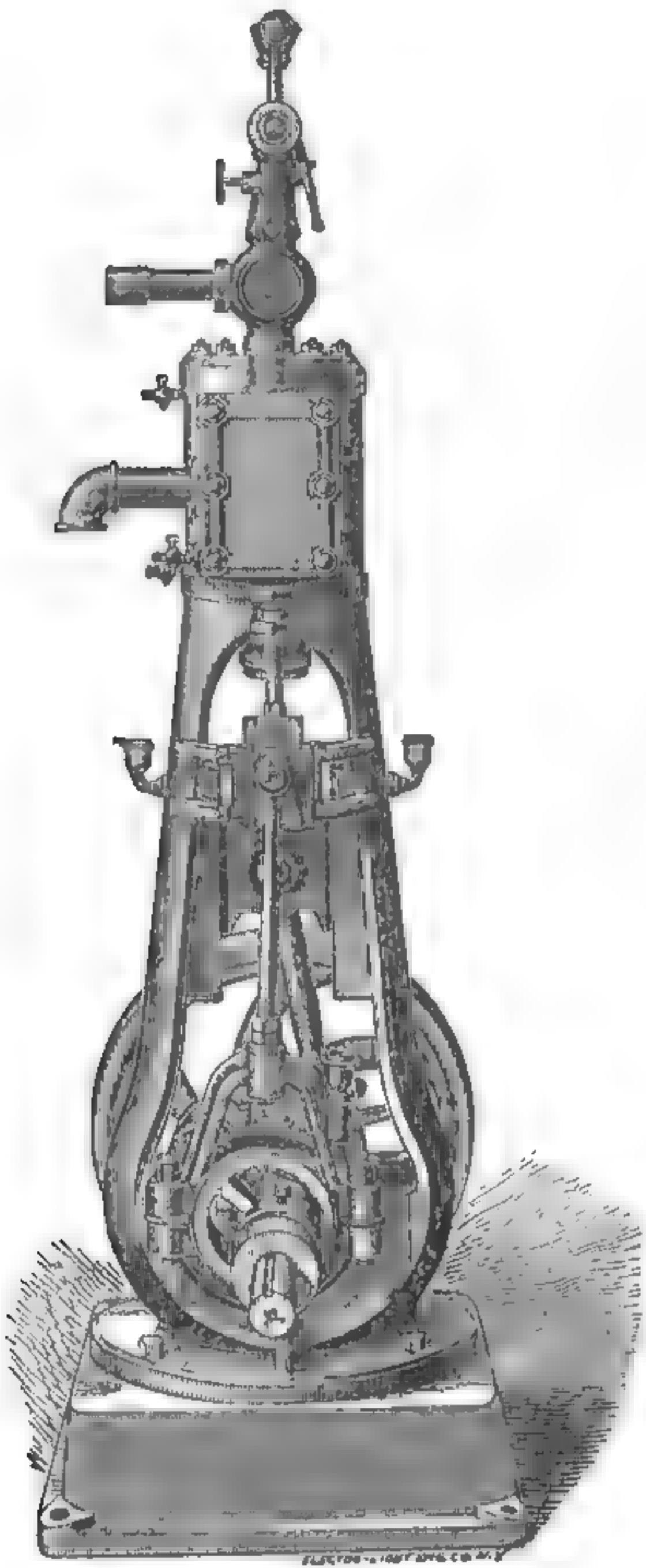
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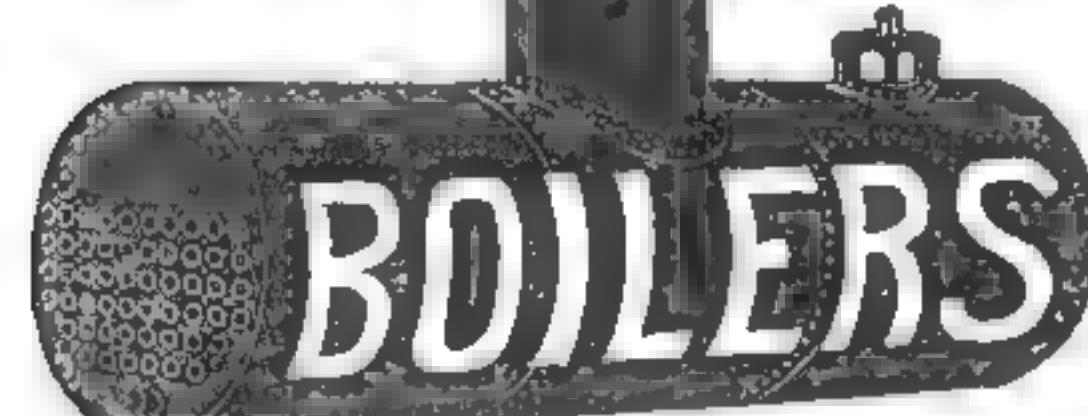
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HEAVY SHEET IRON WORK.
CORRESPONDENCE SOLICITED.

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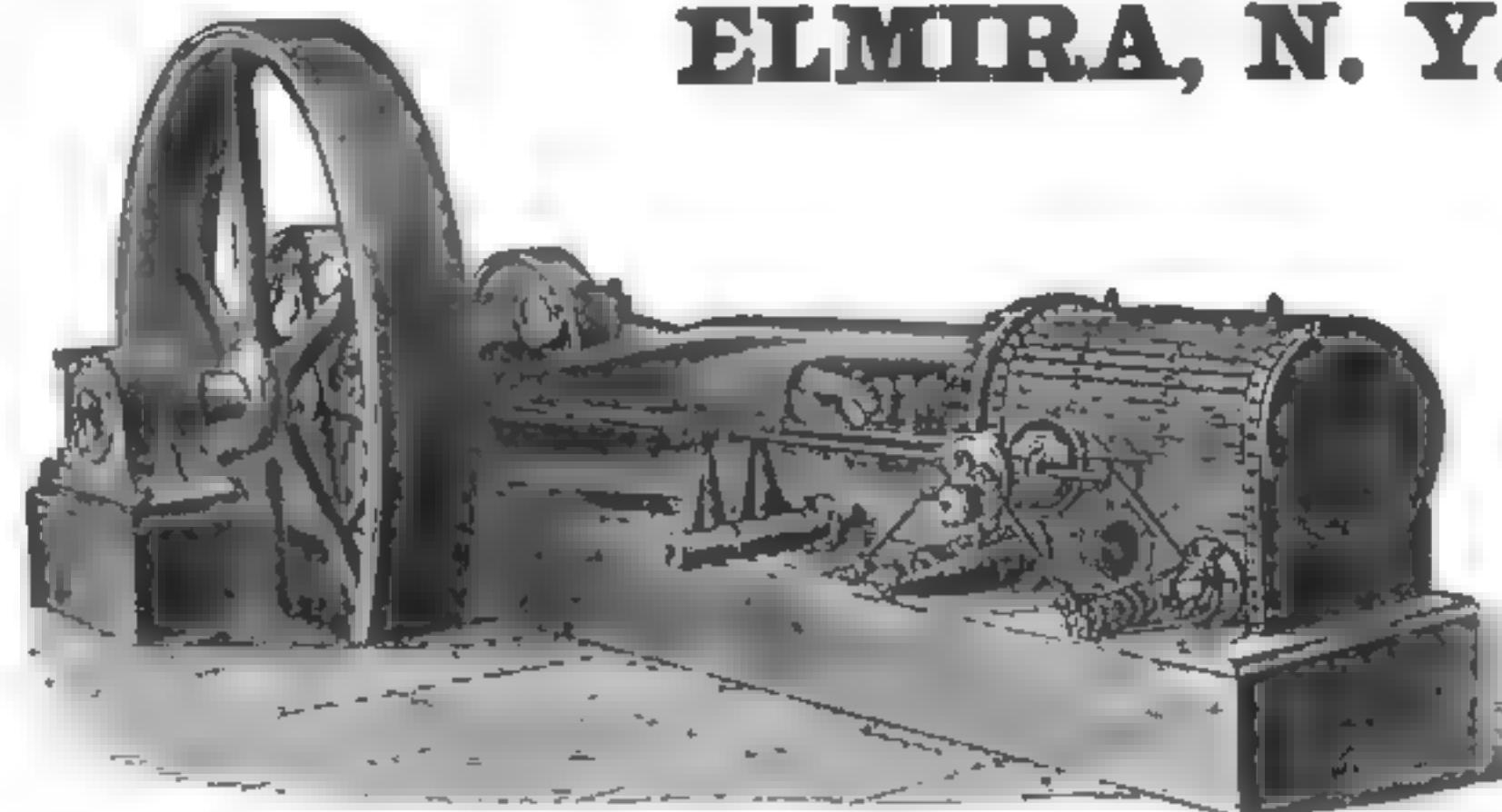
SHAFT GOVERNOR COMBINED WITH CORLISS WRIST-PLATE.

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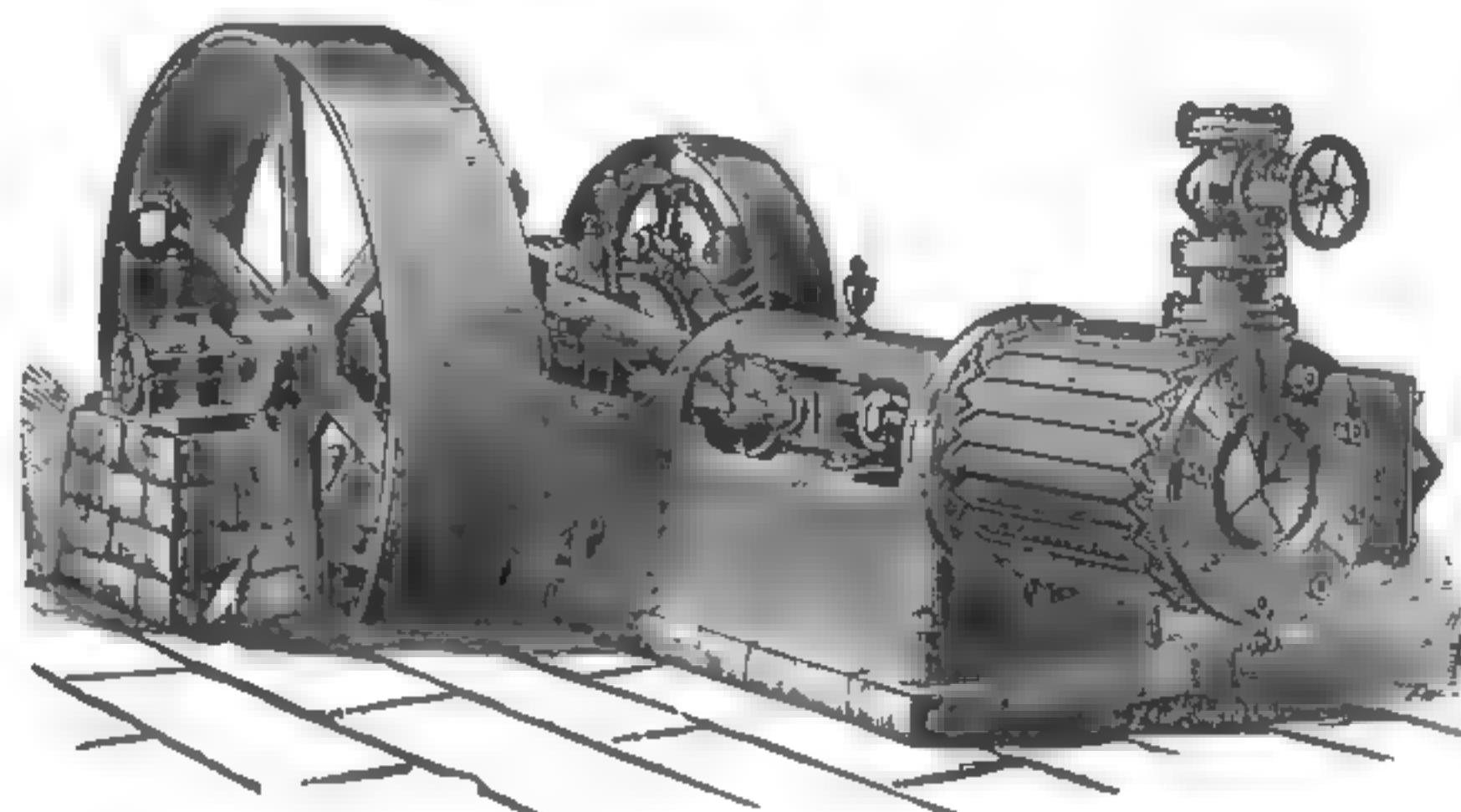
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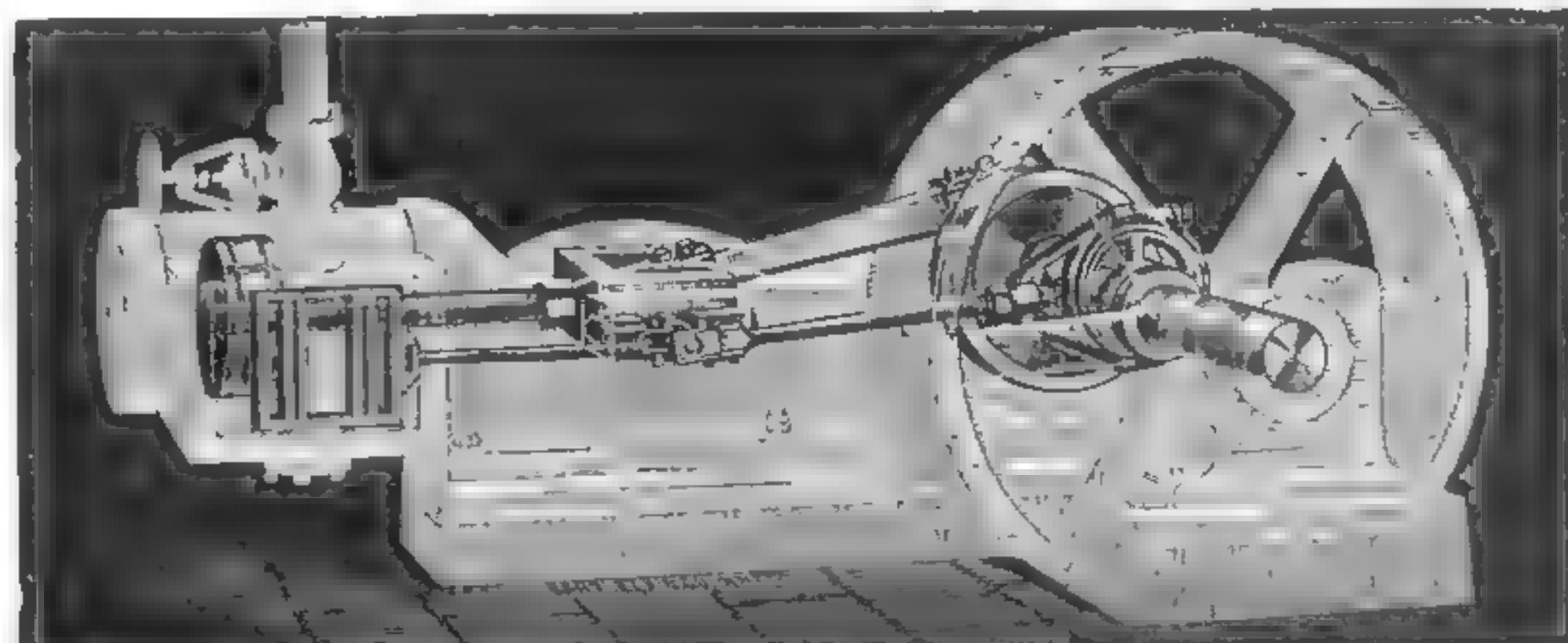
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NOTES AND NEWS

The Palatka, Fla., Milling Co. sold out.
 J. D. Oates, miller, Mobile, Ala., is dead.
 T. Ault, miller, Bellaire, O., will sell out.
 C. Weaver, miller, Plainfield, Pa., assigned.
 Heritage & Sifford, grain, Anthon, Ia., dissolved.
 Beckley & Moffett, millers, Lancaster, Tex., failed.
 Mr. Knowlton, Putnam, Ga., will start a flour-mill.
 Thos. Purdy, Marion, Ky., will start a flouring-mill.
 J. Dix & Co., flour, Hartford, Conn., now Dix & Co.
 Finch & Hayward's elevator, Davenport, Ia., burned.
 The Fayetteville, Ark., Milling Co. will add a corn-mill.
 Wm. Ramey, Heackensack, N. J., will build a grist-mill.
 The Liberty Hill, Tex., Roller Mill Co. will add a corn-mill.
 Miles & Son, Frankfort, Ky., build a 200,000-bushel elevator.
 M. U. Eymer's grist-mill, Maple Ridge, Mich., damaged by fire.
 Troy & Plant, Macon, Ga., are building a corn-mill and elevator.
 Quigley & Clark, millers, Collins, N. Y., now Quigley & Lehning.
 Hathaway & Campbell, millers, Ovid, Mich., now J. O. Hathaway.
 Harrison & Loudenbeck, Nettleton, O., are building a 50-barrel mill.
 C. A. Brown & Bro., Tunkhannock, Pa., are building a 50-barrel mill.
 C. E. Gwinn, Huntington, W. Va., has points on a 100-barrel flour-mill.
 R. A. Hutchinson proposes to build a 100-barrel roller mill at Marion, N. C.
 H. H. Wade and others, Greenville, Tex., formed the Alliance Flouring Mill Co.
 The Citizens' Association, Houston, Tex., has points on a proposed flour-mill.
 J. F. Korner, miller, St. Henry's, O., assigned; liabilities \$15,000; assets \$10,000.
 J. H. Stedman's mill, Sauk Center, Minn., burned; loss \$7,500; insurance \$3,000.
 The Novelty Mill Co., Parkersburg, W. Va., have spent \$10,000 on roller machinery for their mill.

B. M. Pugh, mill, Basil, O., assigned; liabilities \$18,000; assets \$67,000; has been engaged in milling and farming since 1855.

The Spokane Mill Co. and the Spokane Mfg. Lumber Co., Spokane, Wash., have consolidated under the style of the Spokane Mill Co.

B. Lempker and others, Covington, O., incorporated the Trumpet Milling Co., capital \$75,000, to operate a large mill recently purchased by Mr. Lempker.

The cob pipe factory, at Sedan, Kan., is doing a good business. The factory pays $1\frac{1}{4}$ c. for $1\frac{1}{4}$ -inch cobs and $1\frac{1}{2}$ c. for $1\frac{1}{2}$ -inch cobs. A farmer recently hauled a load of $1\frac{1}{2}$ -inch cobs which brought him \$64.

As an indication of the cost of grain-growing in good sections of Manitoba, it is related that a firm of wheat-buyers at McDonald have contracted with farmers to crop their land in the Portage plains in wheat for $22\frac{1}{2}$ c per bushel, doing all the work from seeding to delivering the wheat at the elevator. The seed and ploughing, it is estimated, would cost under \$2 per acre more. At even a moderate yield and price this would return a good profit to the grower.

The General Manager of the Chemical Fire Extinguisher Co., of Chicago, Ill., has just returned from an extended trip through the eastern country, where he has placed before the insurance companies, including the New England Mutuals, the details of the workings of their new Automatic Fire Extinguisher. All the insurance companies, particularly the Mutuals, are very favorably impressed with this system of extinguishing fires, and the company will at once ship to Boston, New York and Philadelphia one of their complete equipments for the purpose of giving tests and demonstrations as to what the machine will do.

The J. B. Allfree Co., of Indianapolis, Ind., report the following contracts: A 50-barrel short-system mill, consisting of a full line of "Keystone" roller-mills, "Success" bolters, etc., including power plant, for Johnson & Tavener, Huron, Ind.; a 50-barrel short-system hominy and pearl-meal mill, consisting of "Keystone" hullers, four-high corn-mill and purifiers, etc., for Winslow & Beals, Fairmount, Ind.; a 75-barrel short-system hominy and pearl-meal mill, consisting of a full line of their special corn-milling machines, for Geo. W. Catt & Co., Bloomfield, Ind., and the sale of special corn-milling machinery to E. A. Spink & Co., Washington, Ind., Geo. F. Signor & Co., Washington, Ind., and H. Miller & Co., Conklin, Mich.

The Case Wheel & Mill Co., Bristol, Conn., write as follows concerning recent sales of their celebrated turbines: We have just placed two 40x18-inch improved "National" water-wheels at Pawtucket, R. I., for the Pawtucket water-works, to be used in pumping. These wheels replace two of smaller size we put in some six years ago. We place one 60x20-inch improved "National" water-wheel for the Jennings & Griffin Mfg. Co., Yatesville, Conn., in a few days. We make our wheels in any depth of bucket, yet our standard sizes are those given in the catalogue. Following are some references of special rate: P. M. Harder & Son, Philmont, N. Y.; Waterbury Brass Co., Waterbury, Conn.; Bristol Brass & Clock Co., Bristol, Conn., 2 wheels; Pawtucket Water Works, Pawtucket, R. I., 2 wheels; Wm. Mann, Jr., & Co., Lewiston, Pa., 7 wheels.

A New York paper of recent date says: "The European markets are supplied with flour made by native mills from Russian wheat at 12 cents less than American flours can be laid down on the other side, while the quality is satisfactory and compares favorably with our spring wheat shipping, which are so poor this year as to be unsalable here. English millers will not change from their Russian to American wheats, except at a further decline and on special inducements, and our mills can not compete with the English millers on this crop of wheat in consequence, which is the first time that this has been the case in five years at least. Hence the export outlook for flour is about as blue as that for wheat, while the Western mills can scarcely get a new dollar back for an old one on present prices for trade brands. It will therefore prove as bad a year for our millers, unless it be our city mills, as they have had in the last five years, if not more, or since they obtained the lead in the European market."

Says a St. Louis newspaper: The provisions of the Central Millers' Association are now practically complete. That in relation to the division of territory is very simple, providing merely for the complete organization of State associations under the Central Association, the State bodies to govern affairs in their territory so far as possible or practicable with the idea of the general good of millers in the entire winter-wheat country. The Central fixes the price of flour from time to time, or rather the basis for the price, as it may be reduced in certain territories, thus effecting the division of the same. Thus the millers of one section, which it is possible to supply from St. Louis, and which may have been largely supplied from this point, may have special advantages, such as good wheat and freights, so that they can put the grain in their mills 5@10 cents cheaper than in this city. The Central Association allows these millers to sell 10@20 cents, or even more, below St. Louis, thus practically cutting St. Louis out of the trade. A rate may be fixed, for instance, which would give Quincy the market in such a place as Chicago, to the exclusion of St. Louis, except as certain brands are wanted, for which the purchasers are willing to pay more money. Then to make up for the advantage secured her the Quincy miller would advance his price to the maximum of the Central Association in territory where St. Louis would have a freight advantage, so that Quincy would be practically shut out of the market in that section. The plan has yet to be more fully perfected and put into operation generally, but the millers are very confident of its working satisfactorily.

BOOKS AND PAMPHLETS.

The H. J. Deal Specialty Co., Bucyrus, O., have the thanks of THE MILLING WORLD for one of their unique flour-trier tablets, devoted to the meeting of the Northern Ohio Millers' Association in that town on the 12 of March.

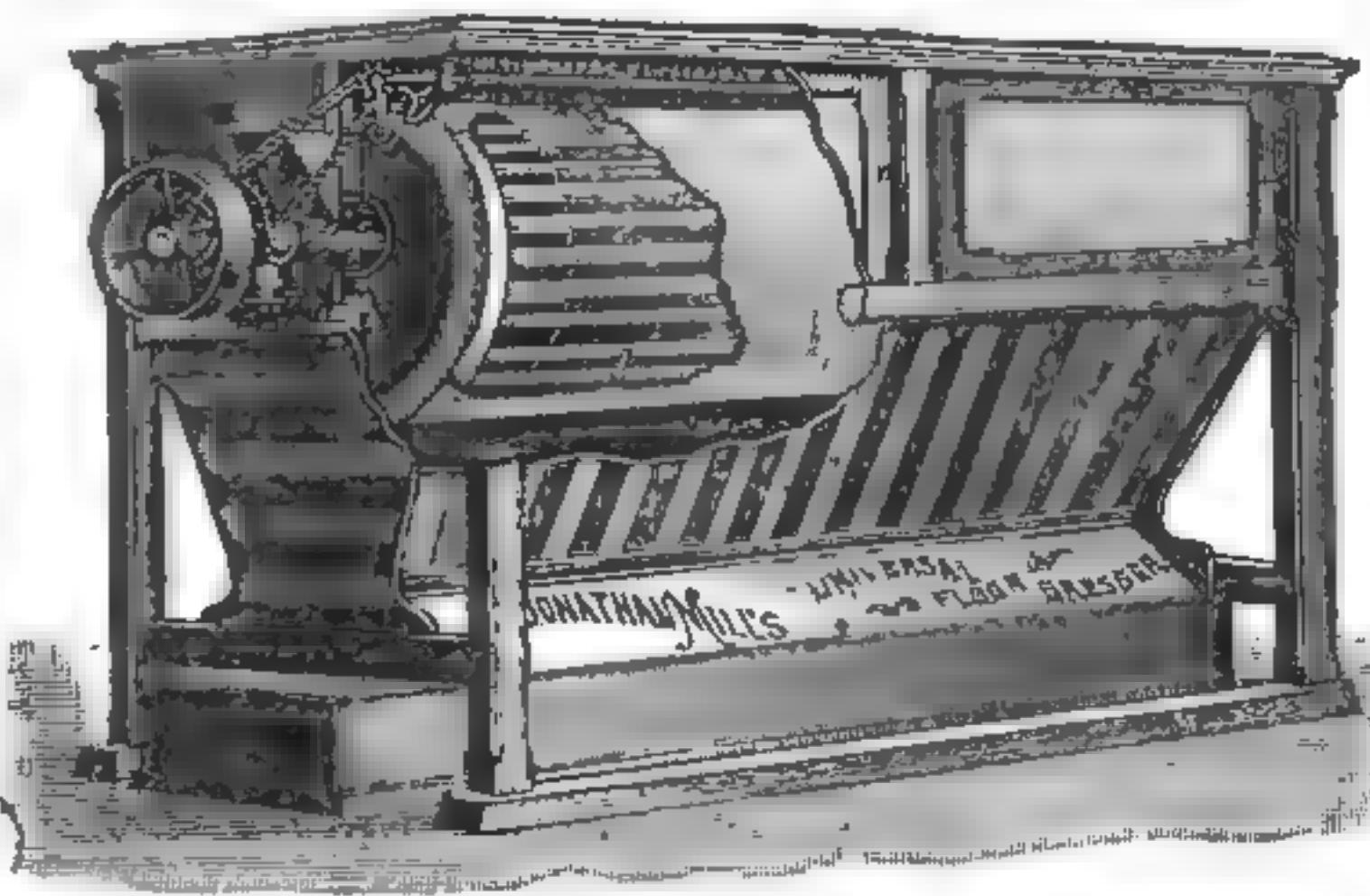
"Easter Angels" is timely and noteworthy. "Through my Window" is fascinating. "A Notable Blue-Stocking" gives a charming sketch of Madame de Sevigne. These, with an attractive array of other stories, sketches and articles are in *Godey's Lady's Book* for April. A capital number this is, well furnished with fashion-plates and directions and embellished with superb illustrations. Two dollars a year is all it costs. Address *Godey's Lady's Book*, Philadelphia, Pa.

Mr. Joseph Jefferson has been engaged for a number of years upon his autobiography, which will soon begin to appear in *The Century*. No more interesting record of a life upon the stage could be laid before the American public, and Mr. Jefferson's personality is perhaps more sympathetic to the people of this country than that of any actor we have had. He is the fourth in a generation of actors, and with his children and grandchildren upon the stage, there are six generations of actors among the Jeffersons. The record which he has made of the early days of the American stage is said to be peculiarly interesting, especially the story of his travels as a boy in his father's company, when they would settle down for a season in a Western town and extemporize their own theater. The autobiography will begin in *The Century* during the coming autumn, and the installments will be illustrated with a portrait gallery of distinguished actors.

GREAT WRITERS OF ALL AGES.—Volume XII of Alden's Cyclopaedia of Universal Literature is richly freighted with literary gems. As in the preceding volumes the biographical sketches are concise but clear and interesting, and the extracts from the writers represented are ample and have been selected with excellent judgment. As illustrating the scope of the work we give a few of the famous names which appear in this volume. William and Mary Howitt; Huber, the blind naturalist; Thomas Hughes, whose Tom Brown books have endeared him to boys throughout the English-speaking world; Victor Hugo, the French poet and novelist; Humboldt, the immortal scientist; Hume, the illustrious historian; Leigh Hunt; Huxley, the great biologist; Saint Ignatius, who earnestly desired martyrdom; Jean Ingelow; Washington Irving, the first American who secured literary recognition from England; Helen Hunt Jackson; Edward Jenkins; Douglas Jerold; Sir William Jones, the great Oriental scholar; "rare Ben Jonson;" Josephus, the Jewish historian; Juvenal, the great Roman satirist. Although these embrace many nationalities and cover many centuries of time, they are only a few of the large number of authors represented. It is an interesting volume of a remarkably entertaining and useful series. It is very convenient in form; paper, printing and binding are all excellent. Sold for only 50 cents a volume in cloth binding, or 60 cents in half Morocco; 10 cents additional for postage if mailed. A specimen volume may be ordered and returned if not wanted. John B. Alden, Publisher, New York, Chicago, San Francisco and Toronto.

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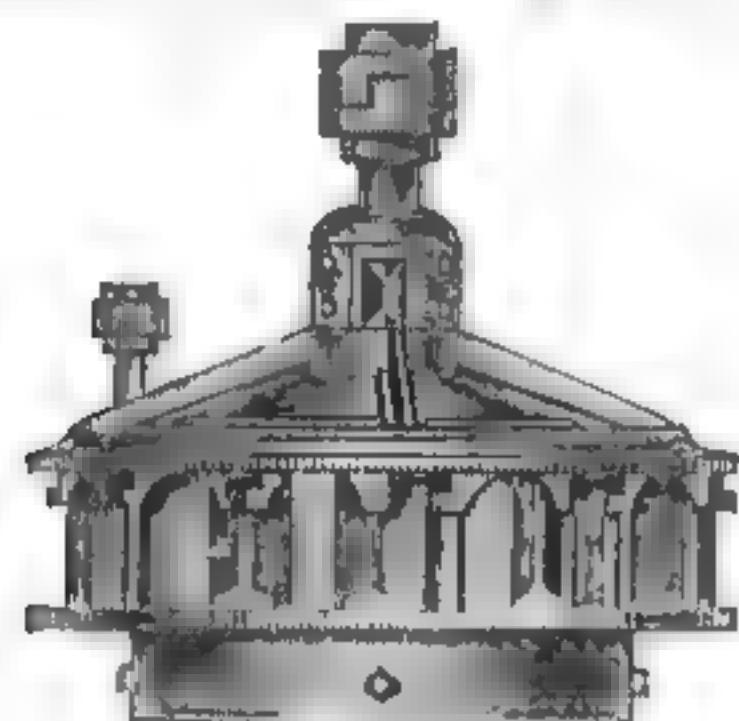
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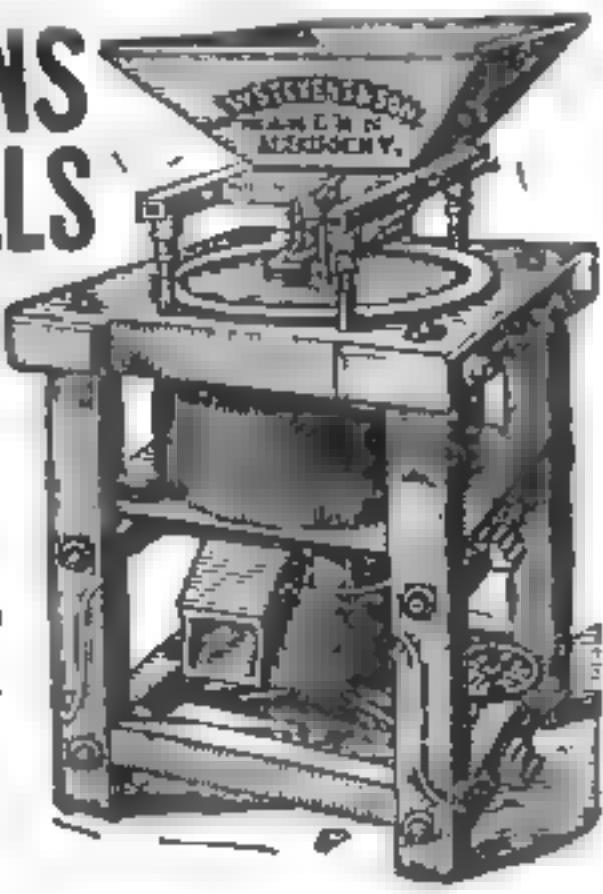
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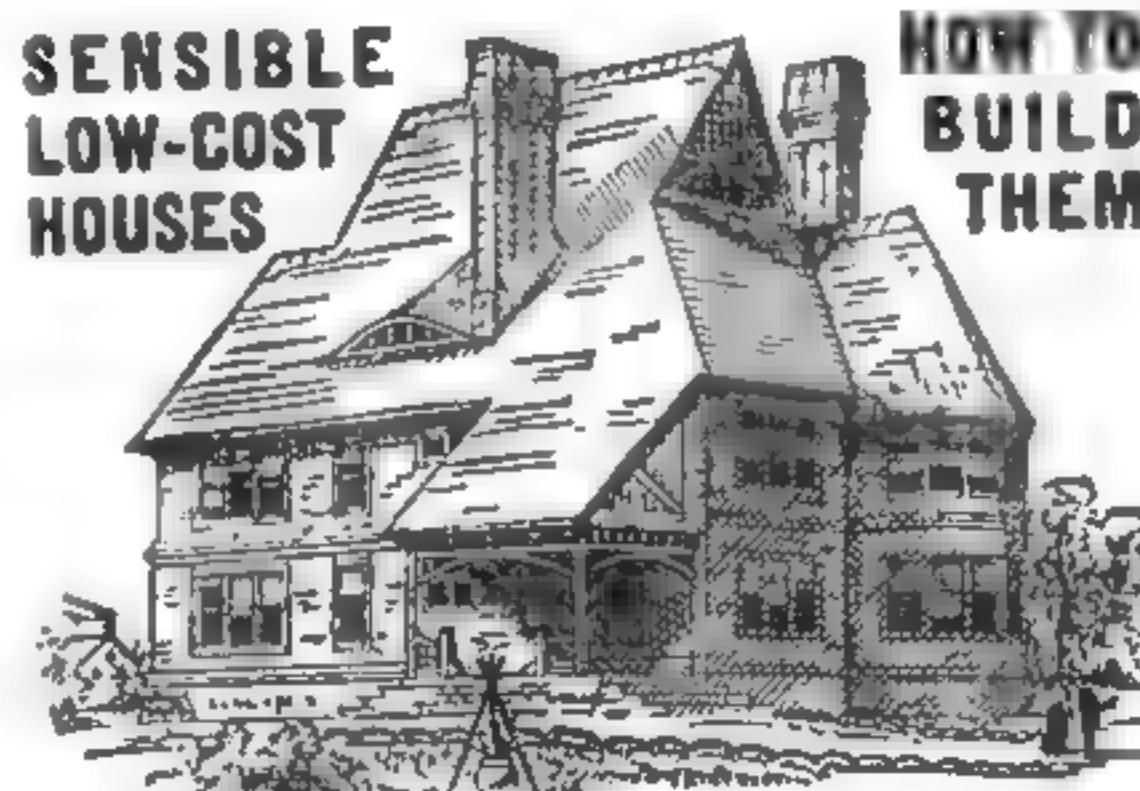
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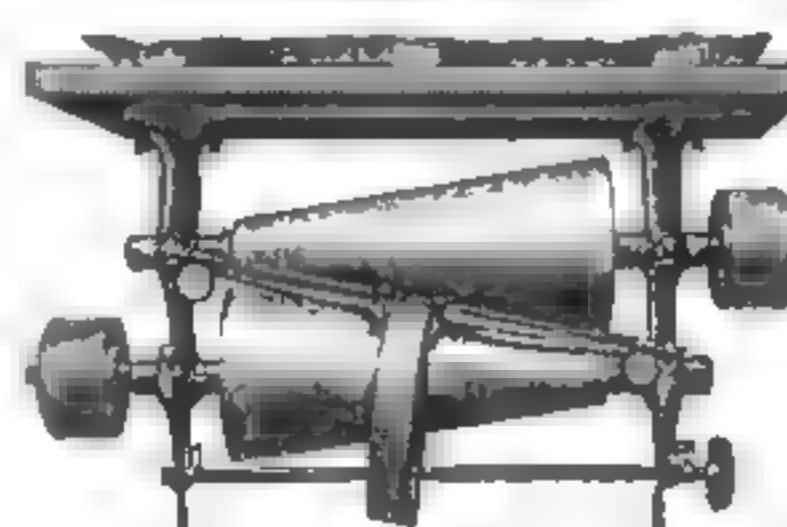
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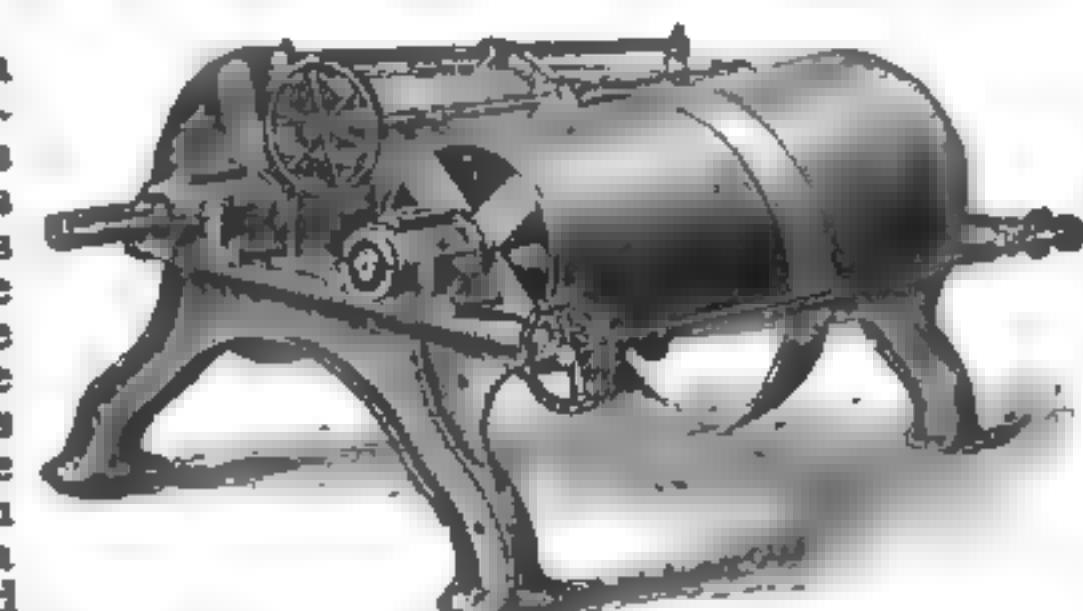
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EUROPEAN ECHOES.

THE proposed combination of the English flour-mills between the Tweed and Humber rivers has collapsed. The public did not subscribe to the funds with sufficient liberality to insure the success of the trust.

NEW Zealand has about 5,000,000 bushels of choice new wheat immediately available for export to the United Kingdom. India in a few days will commence shipping her new crop of wheat, and in less than six weeks it will be in European markets. There is yet over 10,000,000 of Pacific coast wheat in transit to Europe, 5,000,000 bushels of which will be due in 30 days.

IN spite of the abundant harvest in south Russia last year, whole provinces in the interior are reported to the London *Standard* as suffering from a state bordering on famine. The inhabitants of entire districts in the government of Orenburg are said to be dying of starvation. Four years of bad crops have totally exhausted the poor peasants, so that in numbers of villages the people have eaten up the last grain reserved for seed.

THE curious English custom of "gibbeting bread" is still practiced by Lincolnshire housewives. The origin appears to be as follows: Not infrequently, in consequence of a bad harvest and the premature garnering of the wheat before the ears have hardened, bread, after it is baked, will be found to be fibrous, or, in common parlance, *ropy*. It is customary for the women, when they find this to be the case, to take a stick and drive it through one of the loaves, which is afterwards hung carefully up in the larder to guard against the repetition of ropy bread in the future bakings.

IT is reported that south German mills have been in a bad condition for some time, largely owing to the import duties on wheat. The north German mills, situated in Baltic and other free ports, have a great advantage of them in this respect, and also as to low freights inland, which admit of sending their flour to south Germany where its competition is disastrous. Underselling by local mills is also found to be a great evil. To meet these difficulties a number of local associations have been formed to prevent over-production. The latest association of this character, formed in Upper Baden, is under a committee of ten, who fix prices of products, to which members have agreed to adhere.

SAYS the London "Miller" of March 4: The decrease of granary stocks at home, the decrease of America's visible supply and the costs of freights from India, Russia and other lands are attracting attention, many persons deeming the conditions quite sufficient to improve trade in the immediate future, irrespective of the weather. As regards the latter, the decrease of temperature in February from January's mean is not a favorable meteorological sign. A good season usually rises in the temperature month by month; yet 1887 was an ugly, irregular year that finished off with a remarkably good harvest. Looking forward to the next harvest in America and Europe present expectations are reckoned good.

SAYS the London "Miller": A short time ago we had occasion to mention the fact that Manitoba hard wheat, both white and red, had been cultivated experimentally with great success in an eastern county. The seed was sown in a garden, and its increase was resown. This process has now been carried on for some years, and the result is eminently satisfactory. The grain, which soon after its transplantation to British soil showed a tendency to degenerate, has now completely recovered itself and forms both in the white and red variety an excellent sample of "Manitoba" wheat. Now if the culture of the choice hard wheats of North America can be carried out in an English garden, why not in British fields? And if the wheat of Dakota and Manitoba, why should not we be also able to grow the hard

Theiss wheat, which forms the backbone of Hungarian milling? At any rate there seems room for profitable experiment in the transplantation to Great Britain of hard wheat.

AFTER a series of negotiations between the committee of the Vienna and Budapest Corn Exchanges, it is reported that a common understanding has been reached respecting market legislation in the matter of time bargains or "futures." This understanding is essentially in the nature of a compromise, as the Budapest Exchange moves back while its Vienna neighbor steps forward. By the rule enacted at Budapest last December all time bargains were placed without the jurisdiction of the Market Court of Arbitration; under the new agreement, which is said to be binding on the Vienna and Budapest Committees alike, this is so far modified that an exception is made in favor of "all duly registered firms," and all "persons whose business it is to buy or sell grain."

IN a general monthly review of the grain trade the London "Miller" of March 4 says: As regards the great export powers, America, Russia, India, Australasia and South America, the situation may be succinctly stated as follows: 1. America in seven months has only shipped 40,000,000 bushels of breadstuffs, against 60,000,000 bushels in the same period of the preceding shipping year. 2. Russia in seven months has shipped 50,000,000 bushels of breadstuffs, against 48,000,000 bushels of breadstuffs in the same period of the preceding shipping year. 3. India in seven months has shipped about 4,000,000 bushels more wheat than in the same period of the preceding shipping year. 4. Australasia's expectations are reduced by 10,000,000 bushels compared with a year ago. 5. South America's expectations are reduced by 5,000,000 bushels as compared with a year ago. We have thus a total decrease of 2,500,000 + 1,250,000 + 500,000 quarters or 4,250,000 quarters in all, against a total increase of 250,000 + 500,000 quarters, or 750,000 quarters in all. This leaves 3,500,000 quarters or 28,000,000 bushels to the bad; and before the present low level of prices can be held to be either safe or just there is thrown upon the apologists of depression the onus of showing from what quarters the deficiency is to be made up.

SUPREME COURT PATENT DECISIONS.

Use of an invention for business purposes or profit and in which the test of its success and value was only incidental will defeat a patent if it occurred more than two years before application.

A change in the position of a part of a machine will not avoid infringement where the part transposed continues to perform the same function as before.

A party applying for a patent as a joint invention of himself and another should be estopped as against a *bona fide* owner of the patent from defeating it by proof tending to show that he took a false oath or otherwise imposed upon the Patent Office. Having given life to the patent by one oath, he can not be heard to destroy it by another.

Where two parties work together in the making of an invention, each making suggestions to the other, the invention covered by a joint patent will generally be considered as the result of their joint efforts or contributions.

MILLING PATENTS.

Among the patents granted March 12, 1889, are following: James M. Bradshaw and Wm. E. Meek, Eastonville, O., No. 399,373, a bag-holder.

E. John M. Becker, New York, N. Y., No. 399,473, a grain scale and measure.

Oliver P. Hurford, Chicago, Ill., No. 399,616, a screen for bolting flour.

MINNESOTA is wisely utilizing \$100,000 to assist farmers in the northern counties of that state in securing good seed for the spring wheat sowing. The money is not given outright to the farmers, as the law provides for its return by the farmers to the state as soon as the harvest is finished.



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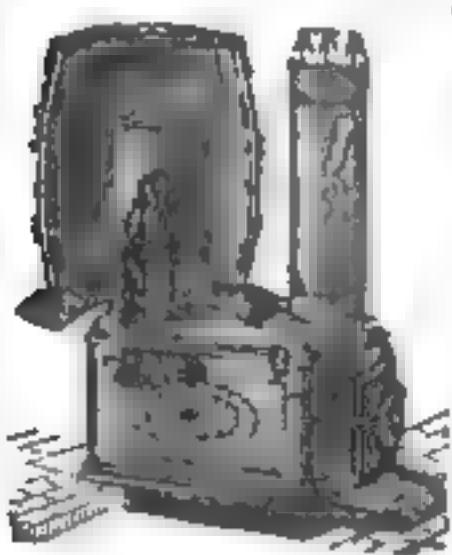
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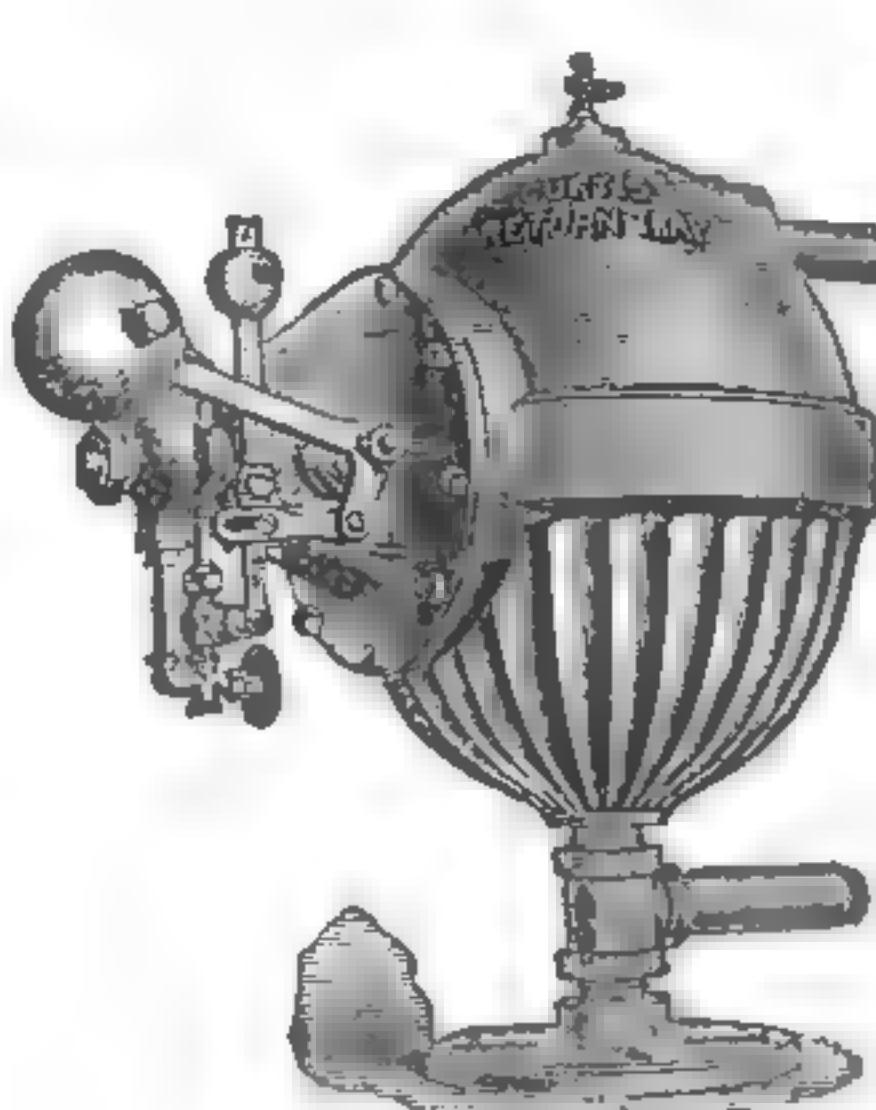
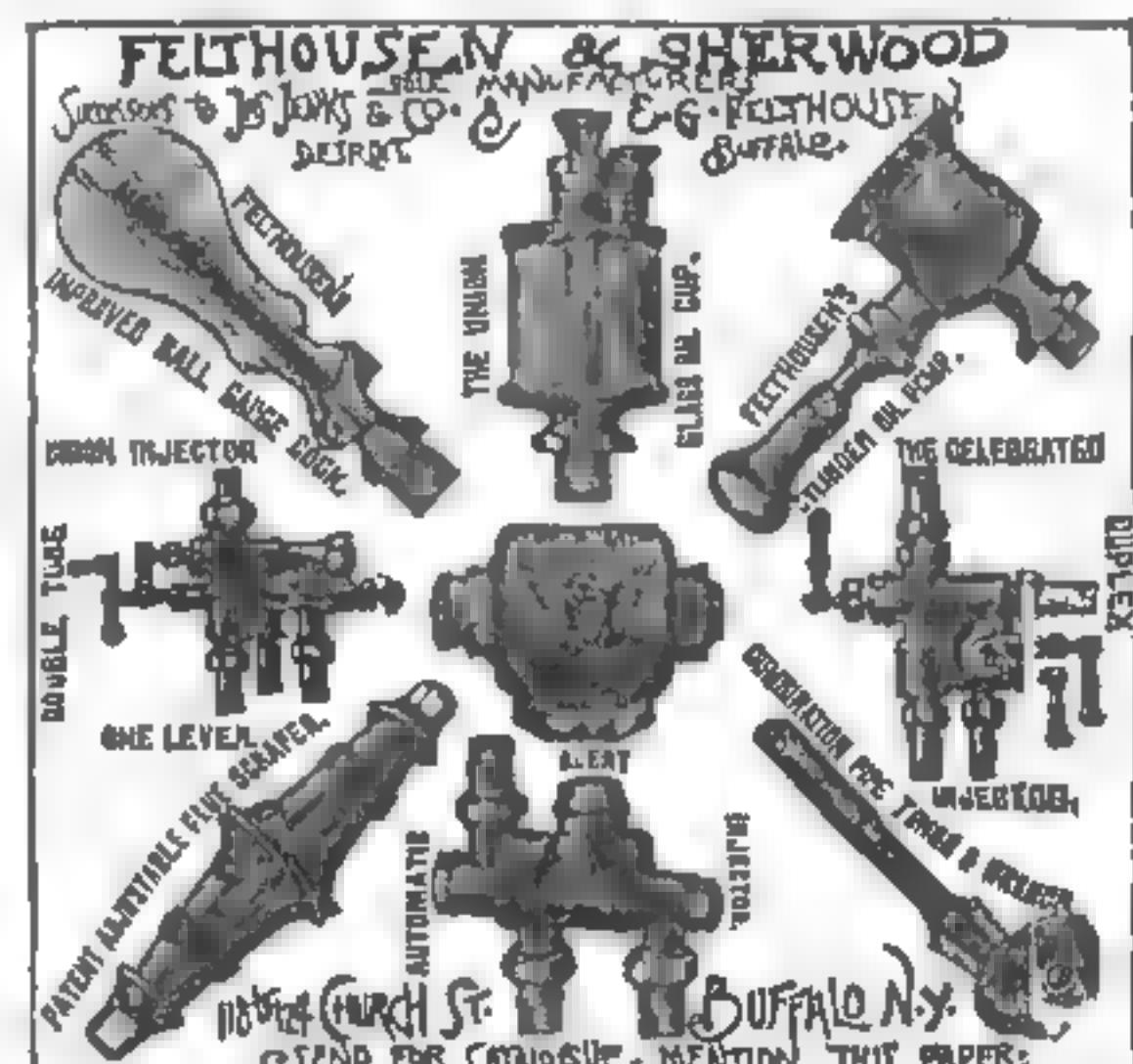
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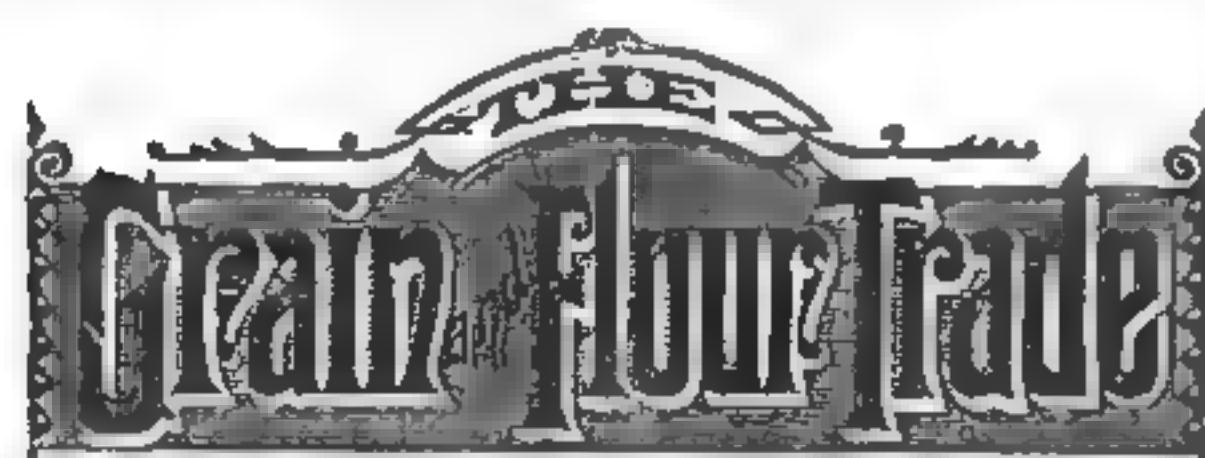
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OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., March 23, 1889.

On Friday of last week heavy pounding and liquidation, with slow demand, made wheat weaker. March wheat opened at 92½c. and closed at 91½c. Options 8,500,000 bushels. Some wheat was sold for Lisbon, but trade generally was stagnant. March corn ruled at 42½c. and oats at 30½c. Other lines were dull, quiet and featureless. The rumors of cliques and rings were vague, and there seemed to be no real reason why the markets should sag as they did. The following figures were circulated during the day in New York, showing the cost of the production of flour at the present prices of wheat in the West and Northwest and of flour in New York, the computation being the work of Wells Finch:

Five bushels winter wheat at \$1.00.....	\$5.00
Barrel, 40c.; freight, 50.; N. Y. expenses, 15c.....	1.05
	\$6.05
Less offal or mill feed, per bbl.....	.50
Cost of 1 bbl. straight winter in N. Y....	\$5.55
Market for straight winter, N. Y. average	5.25
Loss per bbl. at present prices.....	.30
Five bu. No. 1 hard and No. 1 Northern spring wheat at average in Minneapolis of \$1.04.....	\$5.20
Barrel, 40c.; freight, 60c.; N. Y. expenses, 20c.....	1.20
	\$6.40
Less offal or mill-feed, per bbl. flour.....	.50
Cost of bbl. straight spring in N. Y....	\$5.90
Add difference between straight and patent	1.00
	\$6.90
Market for patent spring, average in N. Y.	6.65
Loss per bbl. at present prices.....	.25

On Saturday covering by shorts and a better export demand made wheat higher and more active. In New York March closed at 92c. Options 8,400,000 bushels. In Chicago March closed at 94½c. and May at 97½c. March corn closed at 42½c. and oats at 30½c. Wheat flour was dull and neglected at late bottom prices asked. Trade was confined to jobbing lots. The minor lines were featureless.

Monday opened the new week with depression that was surprising after the strength of Saturday. March wheat closed at 92c. and June at 93½c. in New York. Options 10,000,000 bushels. Rumors of financial trouble in France helped to cause weakness. March corn closed at 42½c. and oats at 30½c. Wheat flour was dull, weak and lower. Exporters held off because of the further break in wheat. The other lines were quiet.

On Tuesday there was a good demand for export, but continued liquidation made the markets decidedly weaker and lower. In New York March wheat opened at 91c. and closed at 89½c. Options 14,800,000 bushels. June opened at 93½c. and closed at 92c. English cables were off 6 to 12 cents on cargoes in London. March corn ruled at 42½c. and oats at 30½c. Wheat flour was thoroughly demoralized. Trade was scattering. All along the line the bears seemed to be having their own way, and no one dared to predict that bottom had been reached. The visible supply in the United States and Canada was as follows:

	1889.	1888.	1887.
March 16.	March 17.	March 19.	
Wheat.....	31,182,501	36,257,747	53,173,425
Corn.....	16,647,438	9,298,426	16,363,062
Oats.....	7,510,455	4,296,845	4,098,771
Rye.....	1,582,455	368,021	390,905
Barley.....	1,723,447	2,030,210	1,583,760

On Wednesday there was a brisk export inquiry and the markets were brighter and

stronger. March wheat opened at 89½c. and closed at 90c. Options 11,000,000 bushels. March corn ruled at 42½c. and oats at 30½c. Wheat flour was steadier with wheat. Trade was light. The other lines were quiet and featureless.

On Thursday the shorts covered heavily and gave the markets a strong upward boost. In Chicago the shorts were panicked. They found no May wheat for sale when they stopped selling, and nobody would sell them until they bid the market up on themselves 3 cents, when Hutchinson stopped the advance by selling over 1,000,000 bushels, which was supposed to be in part for the clique, which, however, is said to have tied up the May wheat tight and refused to sell. In Chicago at closing March stood at 97½c., April at 98½c., May at 99½c. and June at 94½c. In New York the closing for March was 91½c., April 92½c., May 93½c. and June 93½c. Options 7,700,000 bushels. The shorts were started to cover by the falling off in receipts all over the West, in consequence of seeding by the farmers. Improved exports and export inquiries also aided in scaring the shorts. The clearances from the Atlantic ports up to Thursday included 213,000 bushels of wheat and 96,000 sacks of flour. The feeling at the close was bullish. March corn ruled at 42½c. and oats at 30½c. Buckwheat grain was 50c. Rye grain was quoted as follows: Car lots Jersey and Pennsylvania at 54@55c. on track, 57c. in elevator, and 60@61c. for No. 1 State; Pennsylvania and Jersey afloat at 58c. in full loads. Barley was steady at 70c. for 2-rowed State, 70@71c. for 6-rowed, and 70@77c. for Canada. Malt was quoted as follows: \$1.00@1.10 for Canada, whole range; 90c. for two-rowed, 92@95c. for six-rowed. Mill-feed was quiet at the following quotations: 40-lbs, 70@75c; 60-lbs, 65@70c.; 80-lbs, 70@72½c.; 100-lbs, 77½@90c. including sharps, and 57½@80c. for rye; screenings, 50@80c.; oil meal, \$1.45@1.50; cotton meal, \$1.25@1.28; barley meal, 90c. nominally for the latter.

Wheat flour was stronger and there was a good jobbing and export trade. The quotations were as follows:

SPRING FLOUR.

	Sacks.	Barrels.
No grade.....	\$1.65@1.90	\$....@...
Fine.....	1.90@2.15	2.25@2.55
Superfine.....	2.40@2.85	2.95@3.10
Extra No. 2.....	3.05@3.20	3.20@3.35
Extra No. 1.....	3.40@3.90	3.50@3.90
Clear.....	3.60@4.40	4.05@4.55
Straight.....	4.80@5.30	5.30@5.55
Patent.....	5.40@6.05	5.90@6.45

WINTER FLOUR.

	Sacks.	Barrels.
No grade.....	\$1.65@2.00	\$....@...
Fine.....	2.45@2.60	2.55@2.75
Superfine.....	3.85@3.00	3.05@3.20
Extra No. 2.....	3.15@3.30	3.40@3.60
Extra No. 1.....	3.50@4.50	4.75@5.25
Clear.....	3.95@4.35	4.25@4.65
Straight.....	4.75@4.95	4.75@5.25
Patent.....	4.90@5.25	5.05@5.70

CITY MILLS.

W. I. grades.....	\$4.55@4.70
Low grades.....	2.05@2.45
Patents.....	5.45@2.45

Rye flour was slow at \$2.80@3.00. Buckwheat flour was nominally \$1.40@1.50. Corn products were dull at the following quotations: Coarse, 80@83c.; fine yellow, 95c@\$1.00; fine white, \$1.00@1.03; Brandywine and Sagamore, \$2.85; Western and Southern in bbls, \$2.70@2.80; do coarse and fine in sacks, 75c@\$1.10; grits, \$2.40@2.50.

In 1816 one bushel of corn would buy one pound of nails. In 1889 one bushel of corn will buy 10 pounds of nails. In 1816 a pair of woolen blankets cost as much as a cow; in 1889 a cow will buy five pairs of woolen blankets. In 1816 it required 64 bushels of barley to buy one yard of broadcloth; in 1889 64 bushels of barley will buy 20 yards of broadcloth.

In 1816 it took 20 dozen eggs to buy one bushel of salt; in 1889 20 dozen eggs will buy ten bushels of salt. In 1816 it required a bushel of wheat to buy one yard of calico; in 1889 one bushel of wheat will buy 20 yards of calico. With these figures before them, who can justly claim that farm products are not improving? The outlook for the productions of the farm is certainly hopeful. The farmer can exchange his crop for more of the necessities of life than at any former period in the history of our country.

BUFFALO MARKETS

FLOUR—City ground—Patent spring, \$7.25@7.50; straight Duluth spring, \$6.50@6.75; bakers' spring, best, \$6.00@6.25; do rye mixture \$5.25@5.50; patent winter \$7.00@7.25; straight winter \$5.75@6.00; clear winter \$5.50@5.75; cracker \$5.50@5.75; graham \$5.50@5.75; low grade \$3.00@4.25; rye 3.50@3.75 per bbl; buckwheat \$2.50 per cwt. **OATMEAL**—Akron \$6.00; Western \$5.75 per bbl; rolled oats in cases, 72 lbs, \$1.25. **CORNMEAL**—Coarse, 80c.; fine 85c.; granulated \$1.50 per cwt. **WHEAT**—Chicago was exalted and higher, opening at 96½c. advanced to \$1.00½, declining to 97½c. and closing at 99½c., an advance of just 8c from the close on Wednesday. Limits here were steady at 82c over for old, 22½c. for new, 10c for No. 1 Northern and 4@5c over Chicago May for No. 2 Northern. The demand was fair, sales including 3,000 bu old No. 1 hard at \$1.30½, 10,000 bu new No. 1 hard at \$1.20, and 2,000 bu No. 2 Northern at \$1.08. Old No. 1 hard closed at \$1.81½, new No. 1 hard at \$1.22½, No. 1 Northern at \$1.09½ and No. 2 do at \$1.08½. Winter wheat in moderate demand. Detroit advanced 2@8c and the market here was irregular; sales 1 carload No. 2 red early at 88c, latter, 2 do do a 92c; 2 do do at 99½c; 1 do do at \$1.00 and 1 do No. 1 white at \$1.08; No. 2 red closed at \$1.00½ and No. 1 white at \$1.08½. **CORN**—Chicago May opened strong, but closed at 81½c, a decline of ½c from the closing on Wednesday. Here the demand was made ate and the feeling weak late in the afternoon sales 5 carloads No. 8 at 8½c; 2 do do at 87½c; 1 do high color No. 4 at 27½c; 2 do do regular at 28½c, 6 do No. 3 yellow at 88½c, and 1 do do at 88c. **OATS**—Firm and in fair demand for No. 2 white, of which 12 carloads brought 8½c; other grades quiet; No. 8 white quoted at 29@29½c; No. 2 mixed held at 28½@29c on track; white State from wagons 38@38c. **RAILROAD FREIGHTS**.—To New York, Baltimore and Philadelphia rate points on grain flour, and feed, 18c. per 100 lbs; to Albany and West Troy 10½c; and to Boston, 15c.

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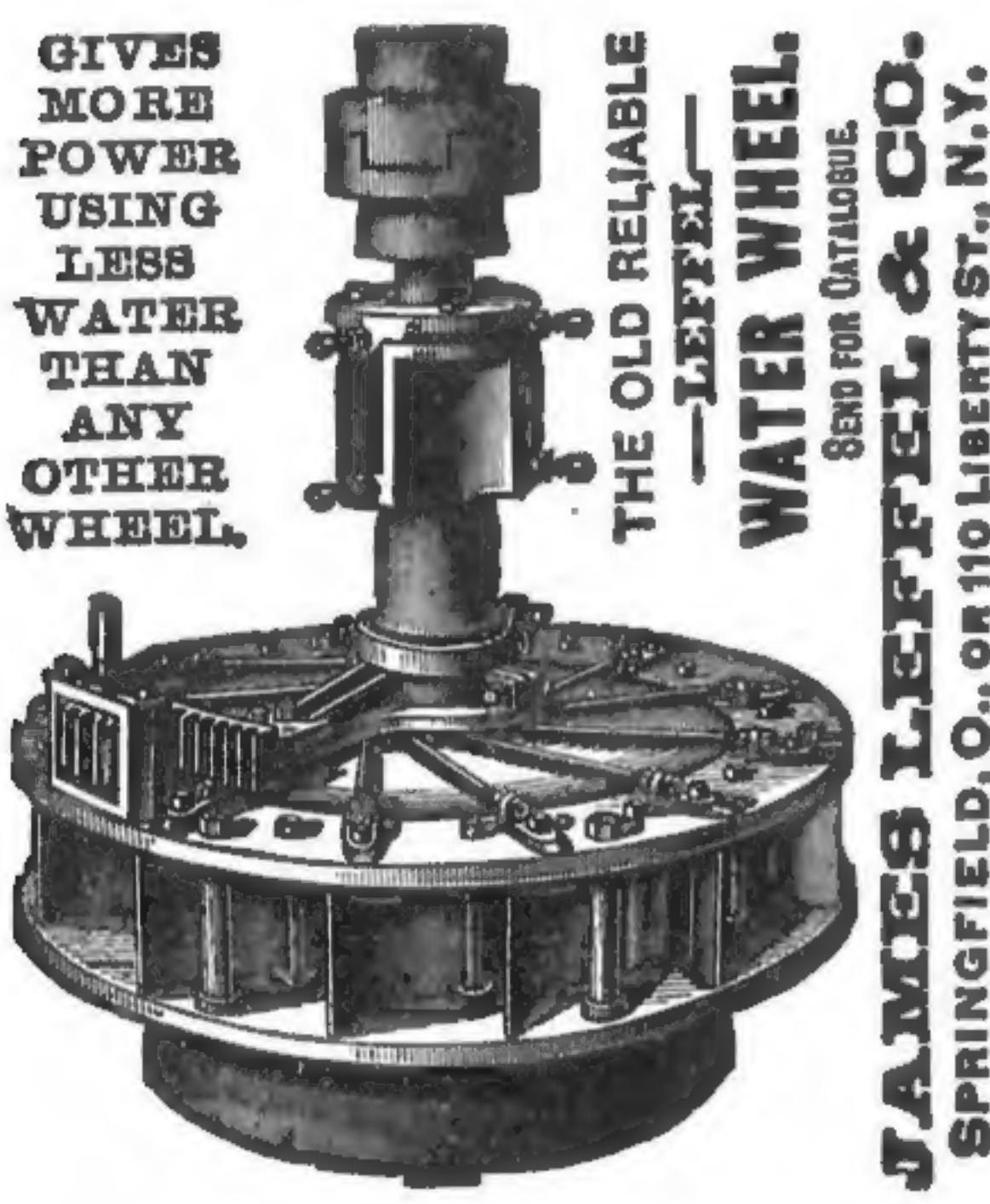
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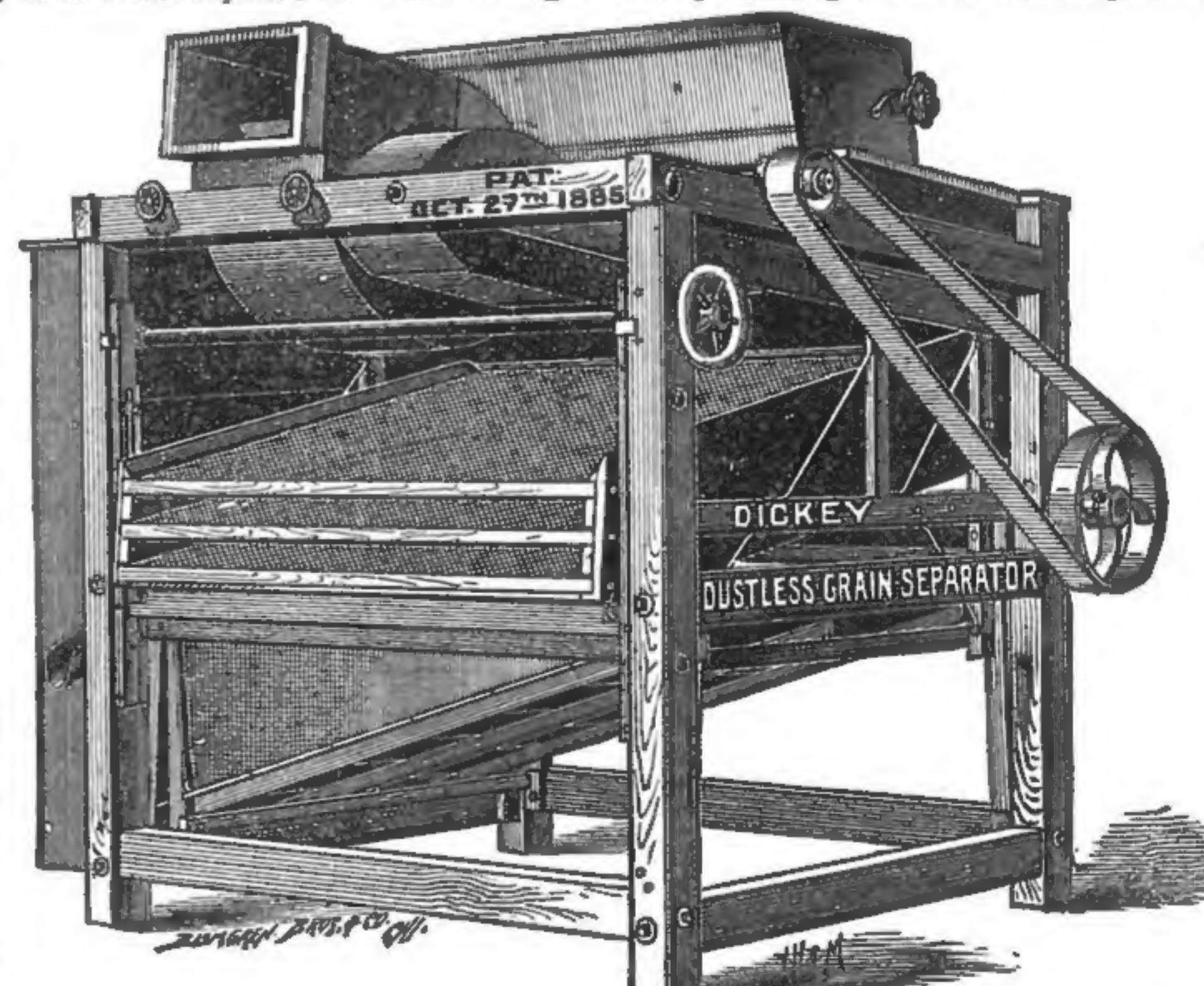


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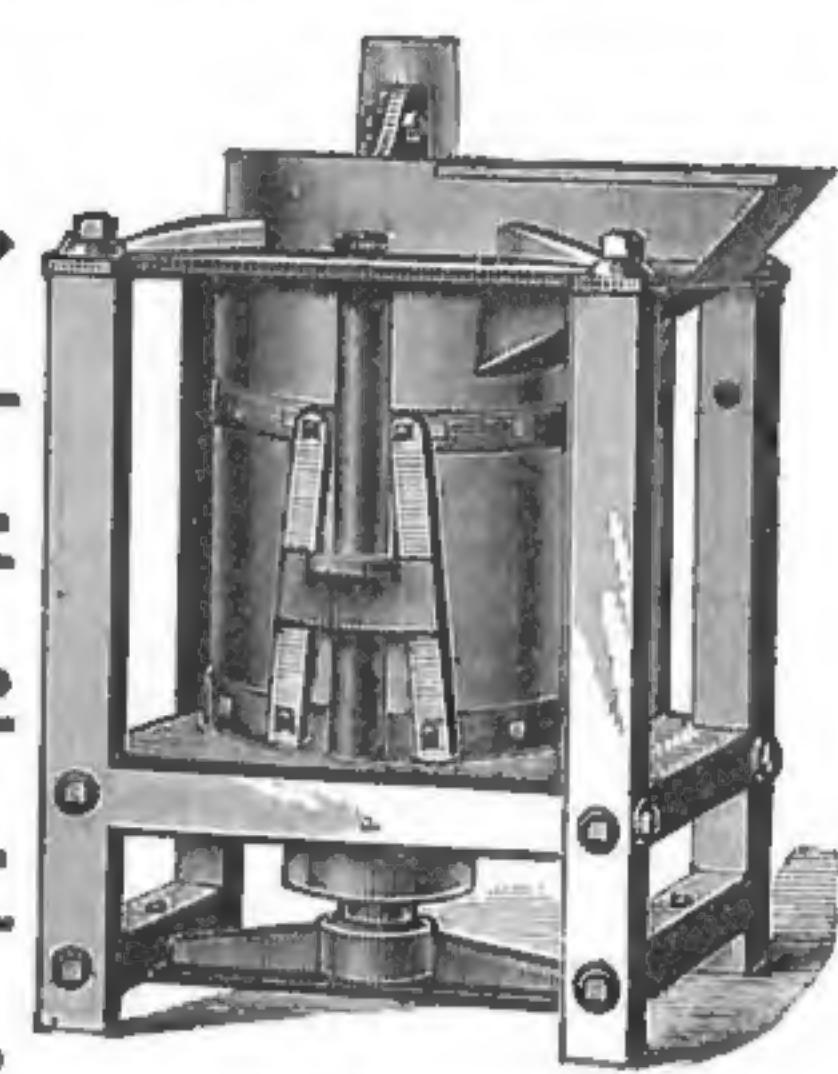
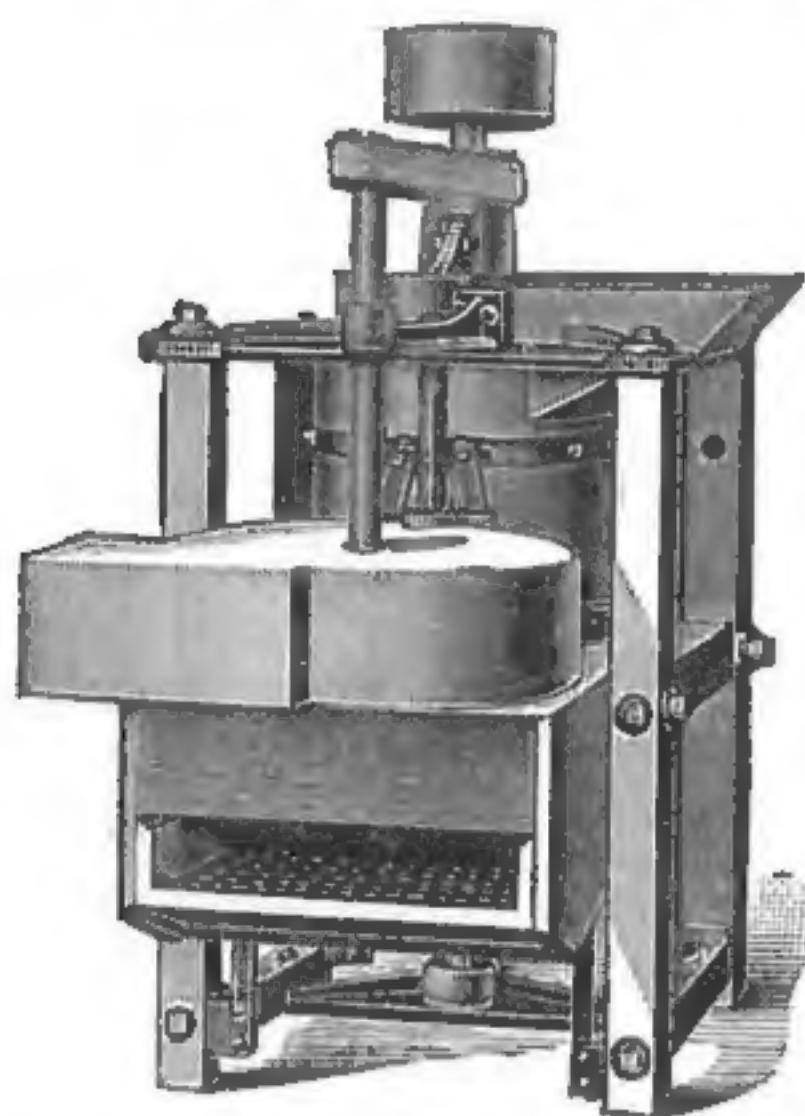
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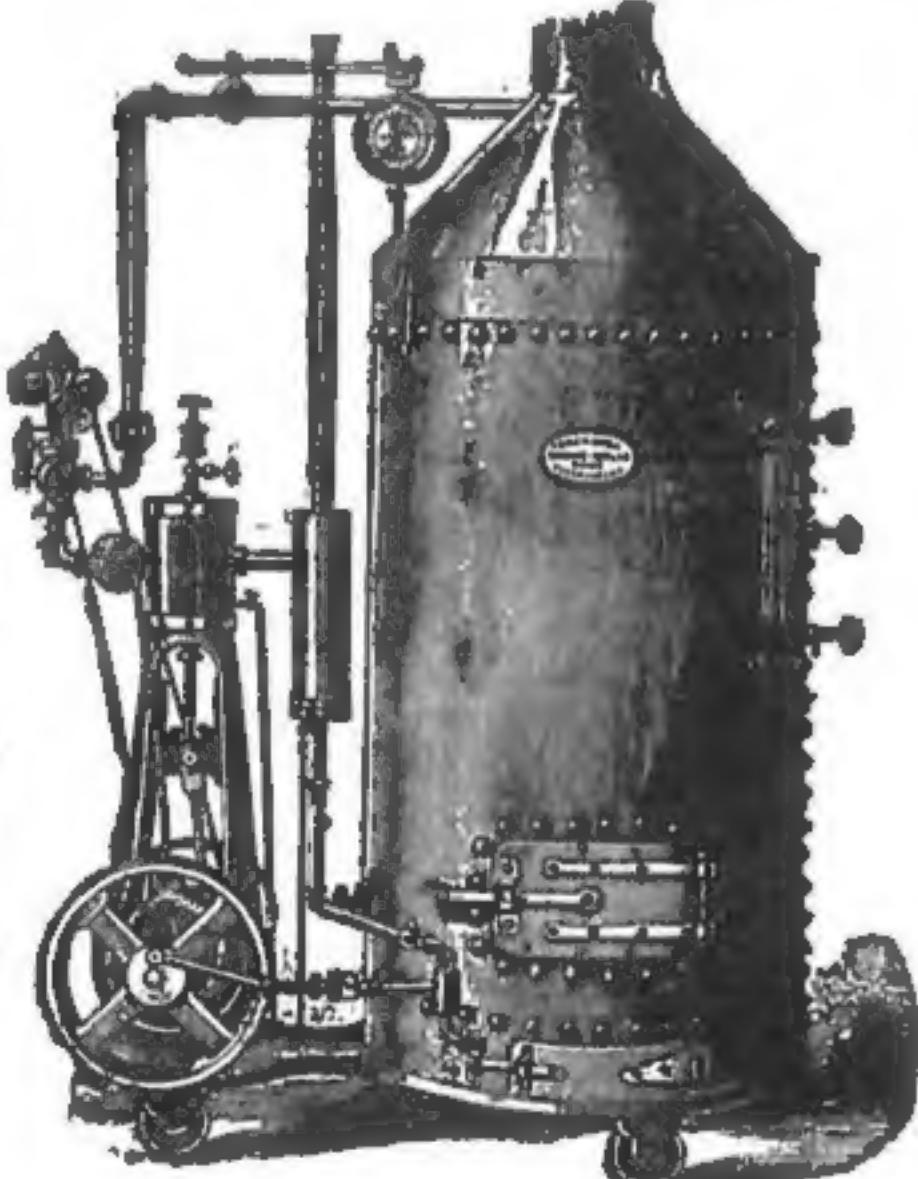
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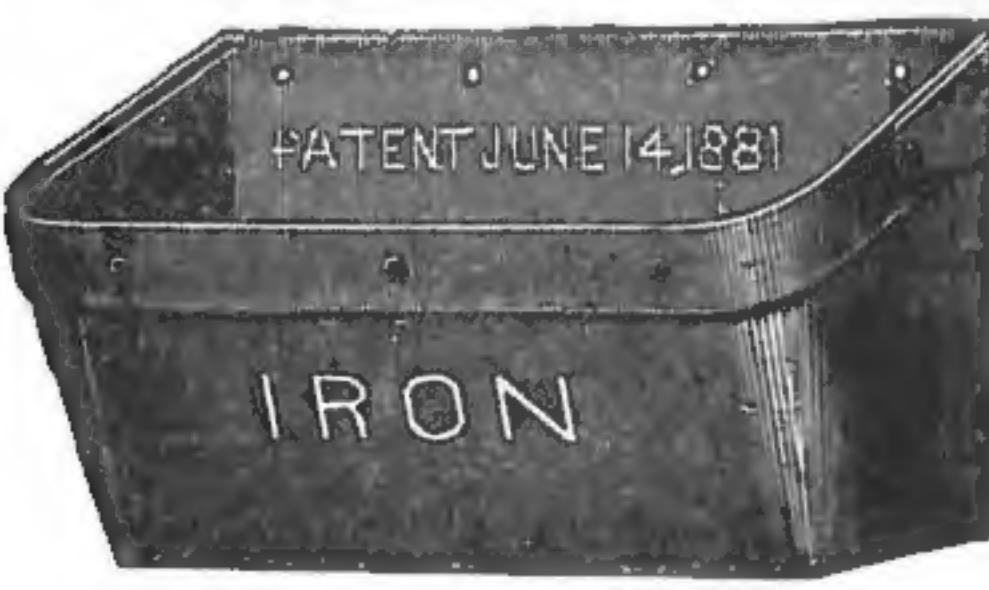
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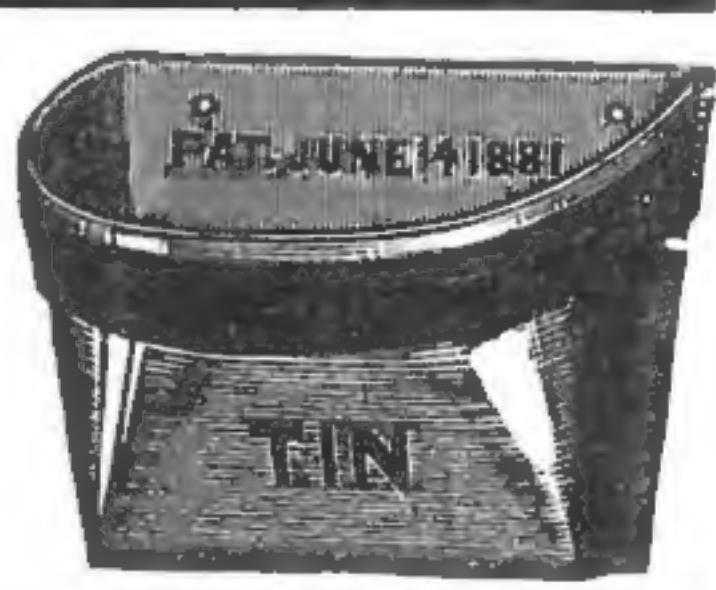
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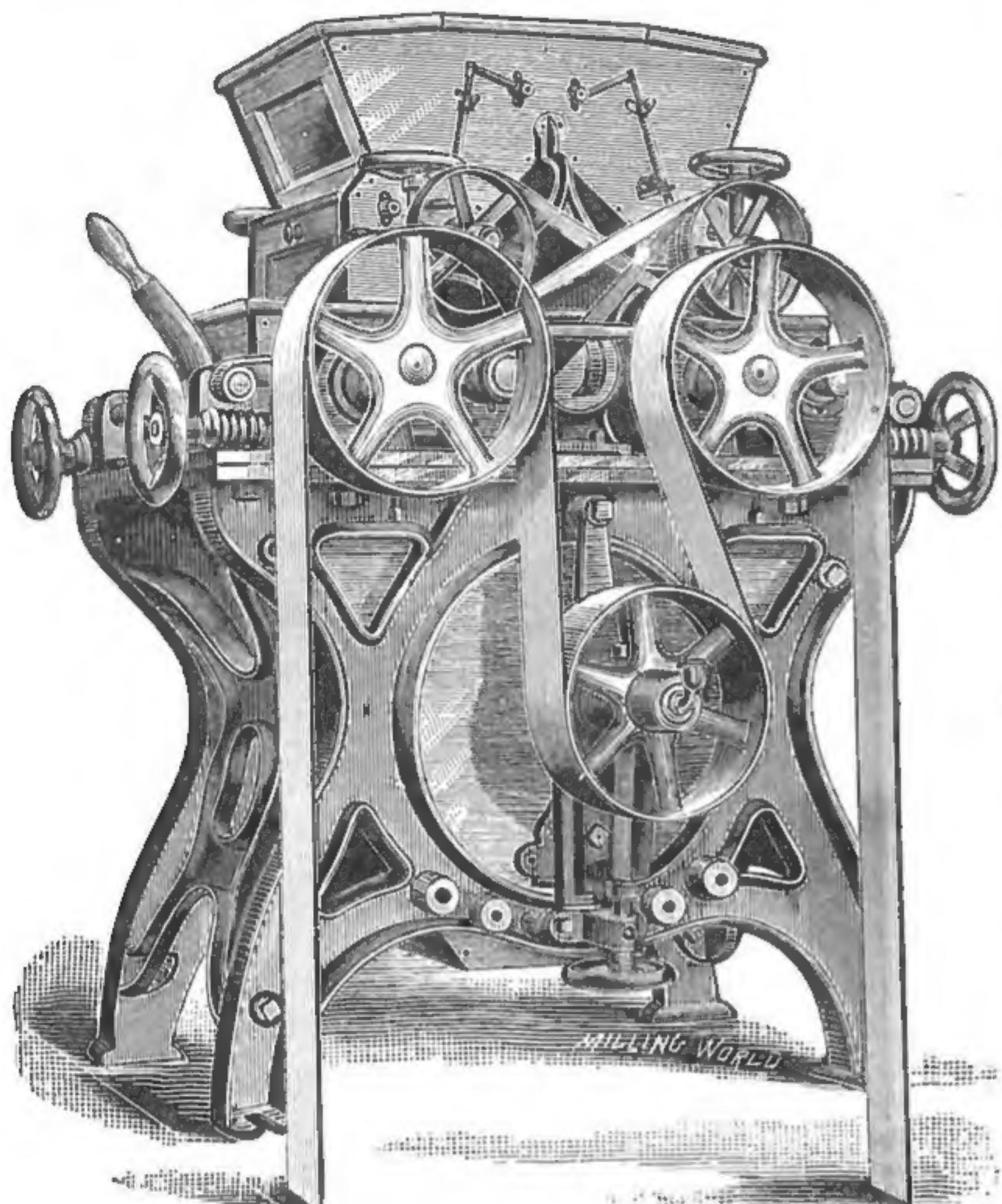


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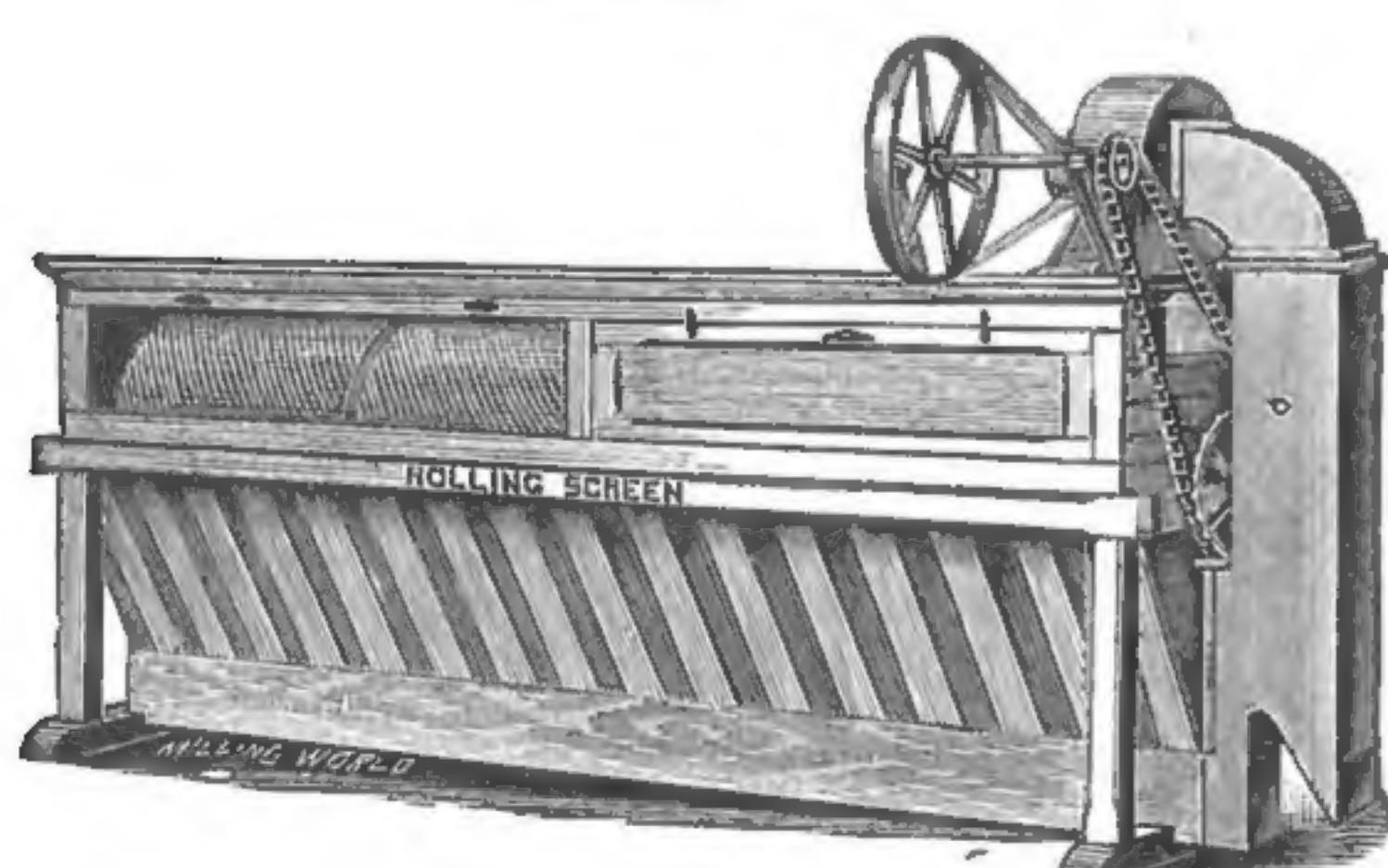
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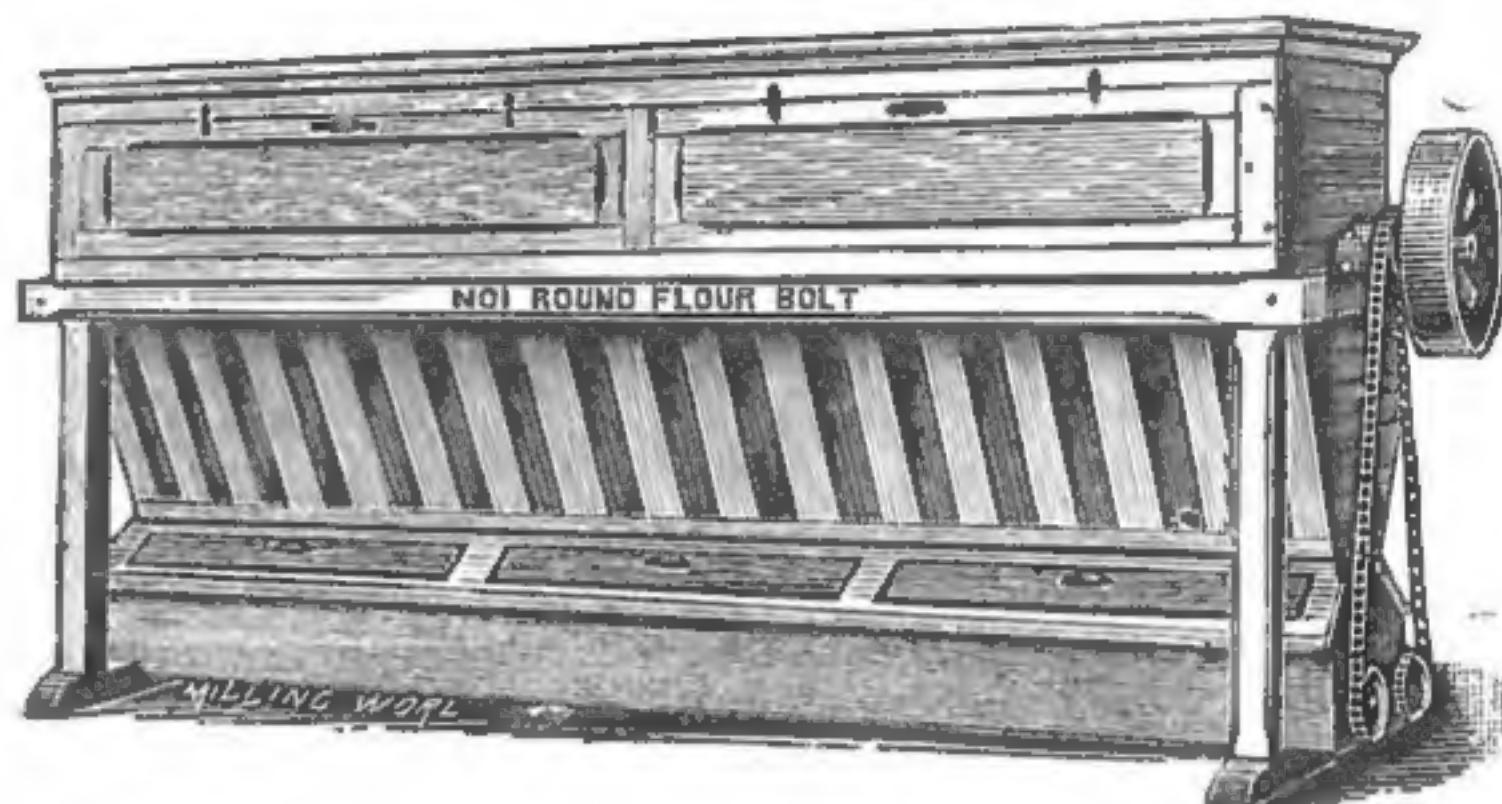
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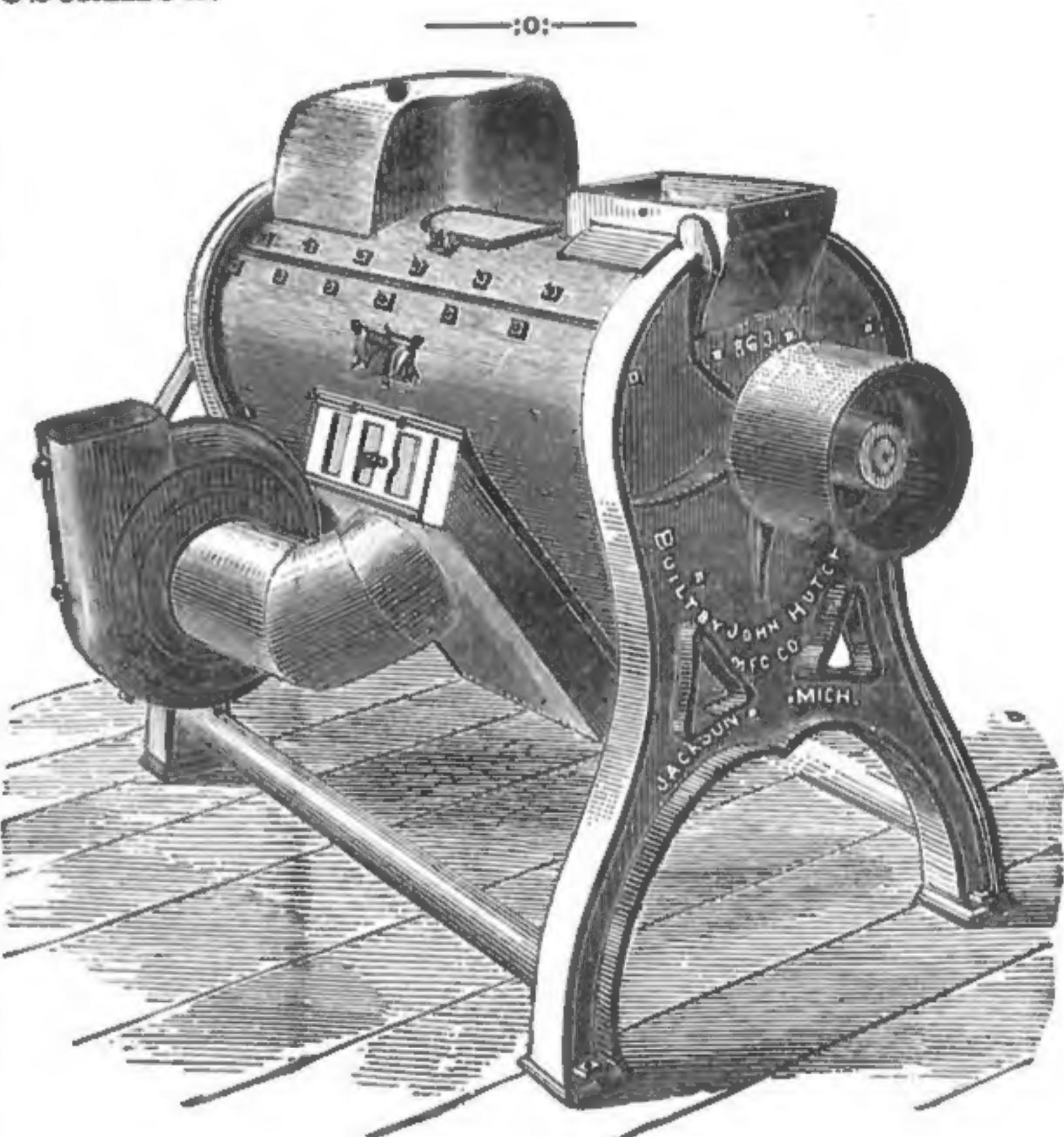


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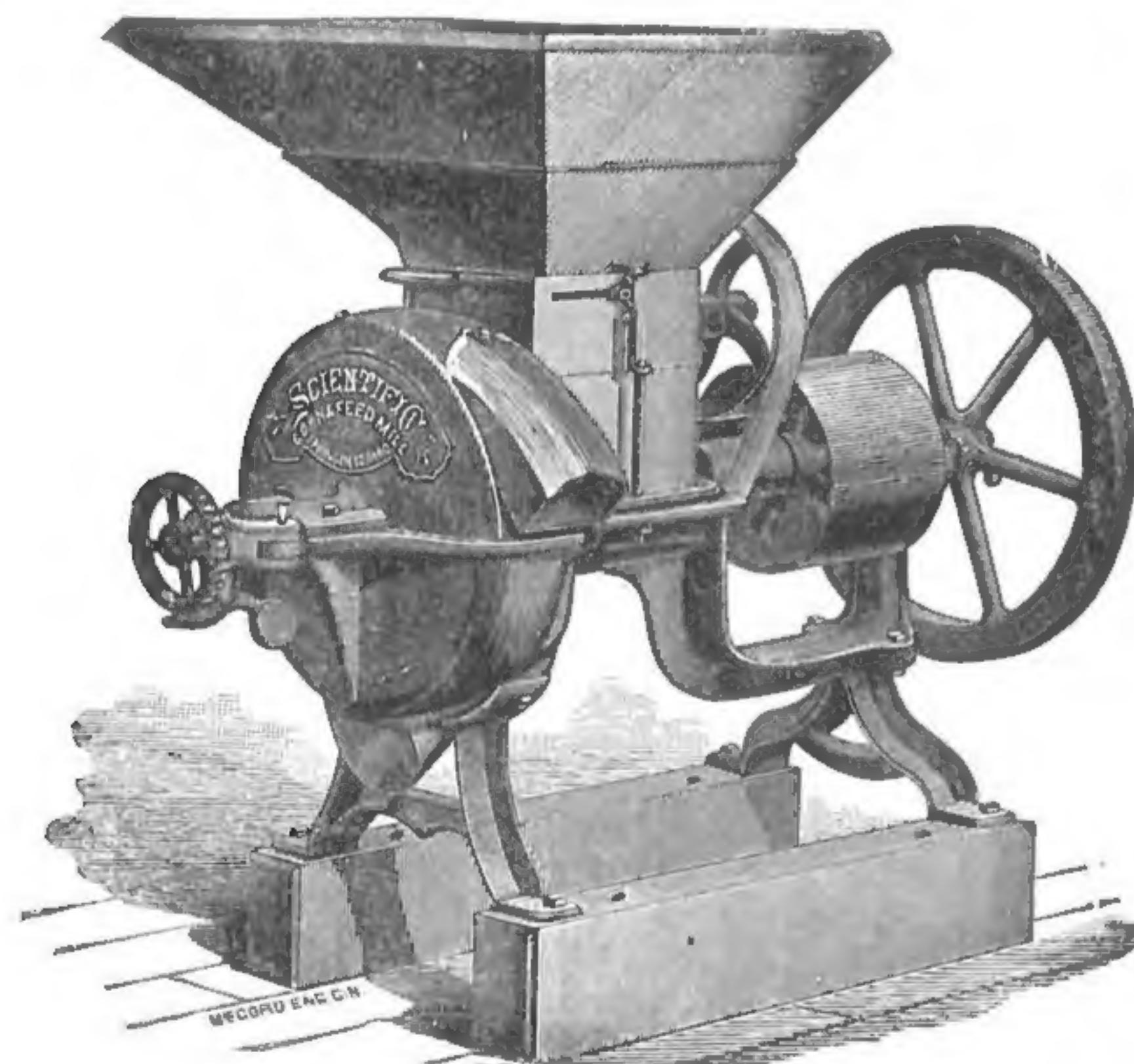


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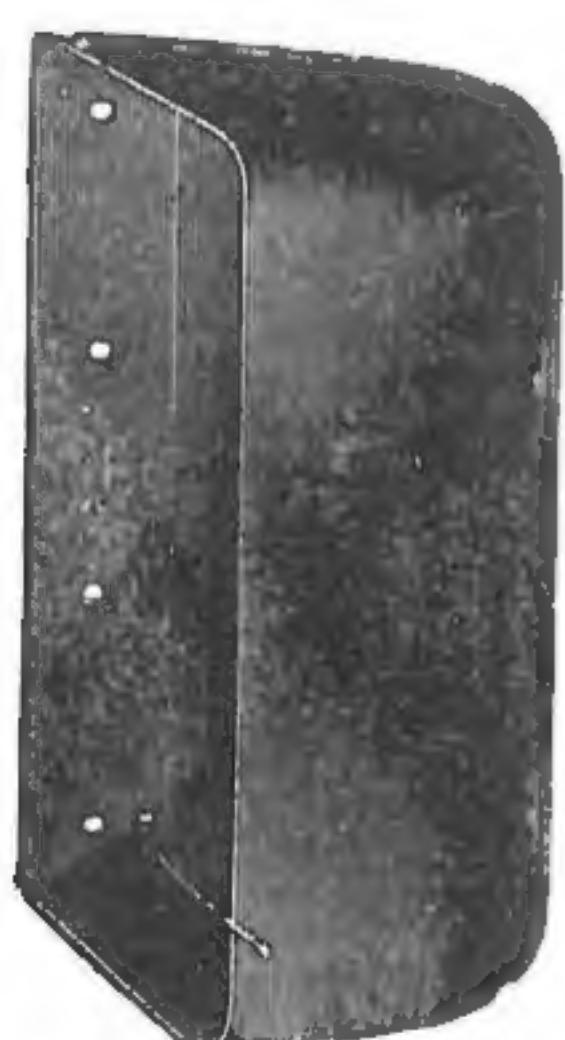
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